॥ ॐ सूर्य आत्मा जगतस्तस्थुषश्च ॥

SURYA NAMASKARS

(Sun – Adoration)

For

Health, Efficiency & Longevity

By

BHAVANRAO SHRINIVASRAO

Alias

BALASAHEB PANT PRATINIDHI, B. A.,

CHIEF OF AUNDH.

1929.

Second Edition — 3000 Copies.

Printed at the Aundh State Press.

Price One Rupee.

Registered under Act 25 of 1867 in the Aundh State.

Printed by B. S. Purohit,

and

Published by R. K. Kirloskar at Aundh.

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BALASAHEB PANT PRATINIDHI, CHIEF OF AUNDH.

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FOREWORD.

It is the wail of the day that a very large majority of our people rarely enjoy normal health. There are no short cuts or specifics for health. It cannot be acquired by proxy. It has to be acquired and maintained throughout life by the observance of a rigid regimen. For the attainment of Health, Efficiency and Longevity we must make a conscience of health.

From our long observation and personal experience we are convinced that some sort of persistent effort is required on the part of the individual for him or for her to grow strong and healthy and remain so.

With a view to show to all earnest seekers after health, what that effort should be, we wrote some articles from time to time in the Marathi Magazine – "Purusharth." It was a great satisfaction to us to find that those articles were very widely appreciated. In 1924 the editor brought them out in book form.

The scientific and fundamental principles involved in our method of doing Sūrya Namaskārs, Sun – Adoration, were at once recognized as enabling most of the vital organs to function normally, and to ensure robust health, rather than merely develop muscular strength, and the book commanded such a sale, that it went through three editions in a short time.

Suggestions, inquiries and requests from non-Marathi districts for an English edition poured in. The earnest and wide nature of the demand has induced us to present the book in an English garb to the English knowing public.

A new chapter on Diet and Habits is added and much additional matter of importance is embodied in this edition.

To further enhance the usefulness of the book, a Chart illustrating the several positions and giving the Sūrya Namaskārs with Bīja Mantras is supplied with the book.

Our sincere thanks are due to Mr. Vajirav Guttikar, 1st Class Sub Judge, Dharwar, and to Mr. Ramchandra Kashinath Kirloskar, Tutor to Ranisaheb, for their great help in rendering the book into English.

We cannot close without tendering our sincere thanks to Mr. H. G. Franks, correspondent of the 'Times of India,' for going over the English manuscript and for making corrections and suggestions.

Our thanks are also due to all the authors, papers and magazines we have quoted in this book.

We hope that this attempt on our part will be appreciated by the public.

Aundh.
31st January, 1928.

The Author.

PREFACE TO THE SECOND EDITION.

It is gratifying to announce that the first edition of "Sūrya Namaskārs" having been sold out within a few months of its publication, the Second Edition, improved and enlarged, is placed before the appreciative public.

Several chapters are rewritten and two new Chapters, V & XV, and six new pictures are added. The book and the chart now contain forty illustrations: twenty-one half-tone pictures, (one of which being in colours) and nineteen pen-and-ink ones, all made at Aundh.

The technique and modus operandi of performing the Namaskār exercise are fully and thoroughly explained even at risk of repetition.

The doubts and questions from a vast number of intelligent and earnest readers have all been carefully analysed and the replies and explanations given to them individually have been embodied in this edition in proper places.

Some non-Hindus might object to reciting Vedic hymns in performing the Namaskār exercise on the ground of sectarianism or religious faith. Some few might even go farther and say that mere repeating the names of the Sun as Mitrāya Namah, Ravaye Namah, etc., would smack of idolatry, though the sun-adoration in the sense we take it, is far from it. To such we would recommend that they omit the Vedic hymns and the names of the sun and confine themselves to saying Ōm,

hrām, hrīm, hrūm, hraim, hraum and hrah only and do the exercise, these syllables connoting neither religious faith nor idolatry. Because the correct reciting of these monosyllables possesses an inherent health-giving merit, too valuable and too vital to omit, whatever the religious faith of the individual performer. (See Chapters VIII and IX and Chart.)

We are proud to observe that the Namaskār exercise has become very popular in different Provinces of India in so short a time. This will be borne out by the fact that our book has been already translated into as many as six languages, viz. Hindi, Gujarathi, Marathi, Kanarese, Telugu and Tamil; and Urdu and Bengali versions will soon be out. All these translations, it will be remembered, have been published by learned volunteers not at our instance but of their own accord.

With a view to give the public a correct idea of the Namaskār exercise as described in detail in the book, we have a Namaskār Cinema Film recently made and it is being exhibited in towns, cities, colleges, etc., at their request. In addition to showing the spectators vividly how each movement of the exercise is actually done, individually as well as *en masse*, the film makes a deep impression upon them.

Aundh.
February, 1929. } The Author.

PRELIMINARY INSTRUCTIONS.

1. Weigh yourself and get yourself examined by a medical man before you begin the course of Sūrya Namaskārs.
2. Measure the principal parts of the body, viz – Neck; arms or biceps; forearm; chest over nipples or breasts; belly; abdomen or waist; hips; thighs; calves.
3. Compare weight and measurements every six or twelve months.
4. Avoid tea, coffee, cocoa, tobacco, alchohol and other narcotics, stimulants, and sedatives.
5. Always use very little, loose and thin clothing during the Namaskār exercise.
6. Exercise in an open and airy place.
7. Bathe with cold water.
8. Regulate your diet and be abstemious.
9. Live a clean and simple life.

CHAPTER I.

THE NECESSITY AND ESSENTIALS OF EXERCISE.

THE NECESSITY OF EXERCISE.

Physical exercise always has been and still is necessary to the human being for Health, Efficiency and Longevity. It is indispensable to every modern individual so that in the present struggle for existence he be able to protect himself, his community and his nation and to earn his bread. It is as necessary as wholesome food, pure water, open air and abundant sunshine are necessary to life.

" The value of exercise carefully chosen and properly executed, cannot be over-estimated. It is essential, however, that when performing the various rhythmic movements, we pay special attention to the development of the *whole* muscular system in unison. Our aim should be *all-round* perfection, and not simply the cultivation of strength. True, muscle is some indication of physical power, but it is no criterion of general fitness.

" Exercise is beneficial to *both* sexes and *all* ages. No matter what branch of occupation we follow, or how physically incompetent we feel, a few exercises of the *right* kind will work wonders."

— Robert L. Fergusson, in " Health and Efficiency " for July, 1928.

" It is most important to preach the necessity of all-round training, of exercising both body and mind. The toxins with which modern civilization poisons our lives

are such that man cannot survive without an antidote. The best antidote to the poisons of civilization is a harmonious system of physical culture.

— Ex Kaiser in "Physical Culture"
for Feb. 1927.

Bernarr Macfadden says :—

" Most people die about twenty-five to fifty years previous to their allotted time, because they fail to take sufficient physical work to keep their bodies thoroughly alive.

" Barring the well-trained athletes, the vast majority of our school boys do not take sufficient exercise to properly develop their bodies.

" You cannot keep throbbingly alive unless you give your body the muscular activity essential to thoroughly develop it. And *all through life* a certain amount of exercise is needed to maintain superb strength and vitality.

" Your emotional reaction to everything with which you come in contact in life is tremendously multiplied and intensified.

" Life becomes a vivid, keen experience to you every day. You feel everything more keenly. You are just that much *more capable* as a human unit."

Almost all children, till they are eight or ten years old, amuse themselves by running, romping and a variety of outdoor and indoor games. For them systematic exercises are not necessary. When, however, children are confined in unhygienic school-rooms continuously for

three hours in the morning and three in the afternoon, or even a longer continuous period, and when the chubbiness or plumpness of infancy begins to disappear to make way for their further bodily development, they must be made to take some methodical exercise regularly with a view to developing their body.

Until a boy or girl knows how regular exercise is absolutely necessary for his or her bodily and mental development, health, strength, vigor and fitness, systematic exercises should be enforced upon young people by their parents, guardians and schoolmasters.

To leave this vitally important matter to the discretion or fancy of students will not do nowadays, especially when the succeeding generation is getting appreciably weaker than the preceding one in spirit, vitality and longevity. It is high time for us to take immediate steps to check this growing national degeneration. We cannot now afford to stand indifferent with folded arms.

" Primarily, of course, health is a life to be lived and not a subject to be taught. Children are far more likely to acquire habits of healthy living through being trained to perform the *acts* upon which health depends than through merely receiving instruction which is mainly theoretical in character. Left to themselves, young children will not perform these acts by the light of nature. They require to be initiated into the life of health. They should accordingly be required to perform certain *acts* as a matter of *regular routine* ... ... The study and practice of health must form, from the first, part of the every-day life of the school. It should be

connected in the mind of the child not only with duties to his comrades, his school and his home, but also with the welfare and happiness of the nation at large."

— "Handbook of Suggestions for Teachers," 1927, page 411. (Board of Education, England.)

THE ESSENTIALS OF EXERCISE.

One should strive to develop and strengthen the three principal organs of the body, on the proper functioning of which all health depends. It has been found by actual experience that Sūrya Namaskārs, if methodically and scientifically done, render these three parts fully developed and capable of resisting disease or disease germs. The three parts are :—

(1) Digestive Organs, including stomach, liver, intestines, etc. — A large number of people suffer from stomachic and intestinal disorders, such as dyspepsia and constipation; and from them come liver complaints, dropsy, piles, diabetes, and a host of other diseases.

(2) Heart and Lungs. – Colds, coughs, asthma, tuberculosis, palpitations, etc. are some of the symptoms of heart and lung derangement.

(3) The Nervous System, which includes the brain, spinal cord, etc. — Brain affection is indicated by headache, megrim or hemicrania, insanity, brain-fag, loss of memory, &c. Paraplegia (paralysis), myelitis, sclerosis of the cord, loss of nervous control over the various muscles, fatigue after slight exertion, depression of spirit, cold hands and feet, disturbed sleep, pessimism, etc., are some of the common ailments of the spinal cord.

The secret of human power and health resides in the Nervous System. It is the Nervous System that transmits energy to the tissues and organs of the body. It is not the actual muscle which makes a man strong so much as the vital energy behind it. *Exercise* not only improves the general health, but directly stimulates the nerve-centres.

Insanity is comparatively rare amongst us in India, but the number of people falling premature victims to the diseased condition of the first two organs of the body is vast, especially among the so-called educated classes. It is admitted that wrong or excessive food is one of the causes of this woeful mortality, but it must also be admitted that lack of proper physical exercise is perhaps the main cause. It is clear, therefore, that an adequate and scientific system of exercise like Sūrya Namaskārs is practically an essential, if health is to be maintained and longevity attained.

CHAPTER II.

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DISADVANTAGES OF OTHER MODES OF EXERCISE.

It is an acknowledged fact that all games, whether Eastern or Western, require one or more companions. Even the great Indian game of wrestling needs one opponent, whilst most other games need either other players or outfit. Even the usual forms of exercise need apparatus of some kind or other.

Exercise with Indian clubs or dumb-bells cannot be done without clubs or dumb-bells. For riding you need a horse or bicycle. You cannot swim without water. Walking, though not requiring apparatus or a companion, takes a lot of time. Eight or ten miles' walk cannot ordinarily be done in less than two hours or two and a half, at the rate of 15 or 20 minutes a mile. And almost all the outdoor exercises depend upon favourable or suitable weather.

Any sport or game requires a spacious ground, which is not always available. In large towns, like Bombay and Poona, there are no playgrounds large enough to accommodate all of the school and college going students. Poona, for instance, boasts of having over nine or ten thousand pupils attending Municipal schools alone, with but four play-grounds for them all — each ground affording space for two or three hundred children at the most.

The exercise to be insisted upon should develop not only the limbs, muscles and internal organs of the body but should also promote mental and spiritual development. To make such a physical exercise universally popular and acceptable there should be no necessity of apparatus or appliances; it should be easy to do; it should take a short time to perform; should be of such a nature as to enable it to be taken anywhere and by anybody; and should not necessitate a partner or companion.

CHAPTER III.

THE BEST EXERCISE – THE SURYA NAMASKARS.

Taking into consideration all the afore-mentioned disadvantages and difficulties and after actually practising for a long time almost all the other forms of physical culture, it has been found that Sūrya Namaskārs are practically the best. The present writer has derived considerable benefit from this exercise and therefore strongly recommends that all boys and girls over eight years of age and all men and women should practise Sūrya Namaskārs regularly and continuously.

People with weak heart or weak lungs will have their complaint permanently cured by Sūrya Namaskārs when properly done with Bīja Mantras. The Sūrya Namaskārs will also make the stomach, bowels and nerve centres function normally, and will purify the blood.

Children, both boys and girls, until they are about eight years old, are usually so active that they keep their muscular system in fairly good tone and their various functions fairly normal; but after eight they need definite regulated exercise and so they must be made to do Sūrya Namaskārs, irrespective of caste or creed.

Children with normal health from eight to twelve should do Sūrya Namaskārs daily from 25 to 50; boys and girls from twelve to sixteen should do generally from 50 to 100; all persons above sixteen should gradually in-

crease the number upto 300. After sixty-five or seventy, however, one should do till death as many as one's capacity will allow. If this practice be religiously and constantly observed, one can defy all preventable disease and will keep oneself fit in mind and body as long as the exercises are persisted in.

To do about a thousand Namaskārs a day for a few months and then to come down to about twenty-five or to give them up altogether, is positively harmful, even as to eat two or three times the usual quantity of food and then to give it up altogether, would be both foolish and dangerous. The rules that govern diet and pastime apply to exercise as well. An exercise to be beneficial, should be taken daily, regularly, continuously and proportionately to one's strength.

To gain the desired end, therefore, Sūrya Namaskārs have to be done systematically and scientifically. They are not a rope-dancer's antics. They must be so performed as to develop and strengthen almost every part of the body.

We have observed that in some schools and colleges physical training, such as gymnastics, drill, etc., is imparted to students twice or thrice a week. Such spasmodic efforts will never produce the desired benefits, which we want every boy and girl to possess.

" Whether you are weak or strong, young or old, I advise you to begin these exercises at once, and rather today than tomorrow. But don't attack them too vigorously at first, unless you are accustomed to physical work.

" It is *daily* physical exercise, if only for a short time, that has so excellent an effect. It ought, therefore, to become a *habit*, a necessity. Daily exercise can by no means be replaced by, for example, one hour's gymnastics twice a week or some hours' practice at games or sports in the week-end, however excellent the latter may be regarded as supplementary. "

— J. P. Muller, K. D.,
in his book, " My System " (1925)

The rewards, which await those who perform Sūrya Namaskārs according to our instructions, will be beyond price.

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CHAPTER IV.

HOW TO DO SURYA NAMASKARS.

The Sūrya Namaskār exercise, in a phrase, is "Sun-adoration for Health, Efficiency and Longevity."

Every Namaskār is concerned with the action of the following eight parts of the body:– (1) Forehead, (2) chest, (3) legs and feet, (4) arms and hands, (5) knees, (6) sight, (7) vocal organs and (8) mind and will. This sort of salutation is termed "Sāshtānga Namaskārs" – "an eight-sided or eight-limbed adoration," as we might call it. *

There is given below the mode of performing Sūrya Namaskārs that was followed by the writer's worthy father, the late Chief of Aundh. For 55 years he did these Sūrya Namaskārs. We follow the same method.

For Sūrya Namaskārs a piece of ground 7′ × 2½′ made of paved stone, rough bricks, or similar non-slippery surface and perfectly horizontal is all that is required. As little clothing as possible should be worn, as too much clothing interferes with freedom of movement and also induces a tenderness of the skin inviting colds and similar ills.

The proper time for the Namaskārs is before sun-rise with an empty stomach. If one regards Sūrya Namaskārs more as a **तपश्चर्या**, as we do, than as a mere

* उरसा शिरसा दृष्ट्या वचसा मनसा तथा ।
पद्भ्यां कराभ्यां जानुभ्यां प्रणामोऽष्टांग उच्यते ॥

×

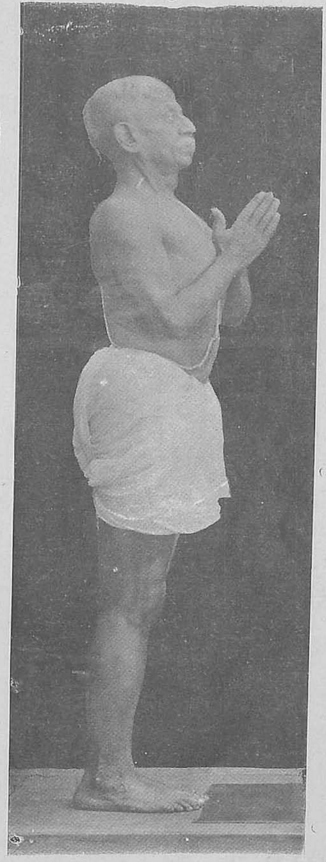
bodily exercise like drill, the time before sun-rise is the best, for it is then that one's mind is fresh and one can have sufficient calm and quiet, as well as freedom from noise and disturbance from one's home and from outside. One should get up at 5 A. M., do one's washing and bathing, put on clean and light suitable clothing (the lesser the better) and do the Namaskārs, which one can finish five minutes before the sun rises, so as to be in a fit condition to absorb the violet rays of the rising sun. Or, if possible, the Namaskārs may be done immediately after the sun-rise, exposing one's body – almost bare body – to the life-giving ultra-violet rays of the rising sun.

Every physical exercise should be so taken that with about five to ten minutes' rest after finishing it, one should feel fresh and cheerful to do one's daily duties. In other words, one should exercise within the limit of one's strength. This golden rule particularly holds good in the case of Sūrya Namaskārs.

FIRST POSITION — Spread a piece of woollen, silk or cotton cloth about 22 inches square on the floor. Stand facing the east, with feet and knees together and the toes touching the border of the cloth. Fold the hands against the chest pressing the palms against each other. Spread out the chest and draw the belly in. Stiffen the whole body, especially the waist. Make the upper arms tense. Look straight. Keep the head, the neck and the body in a vertical line. Say the mantra. Close the lips. Inhale deeply through the nose only and hold the breath. (See Fig. 1.)

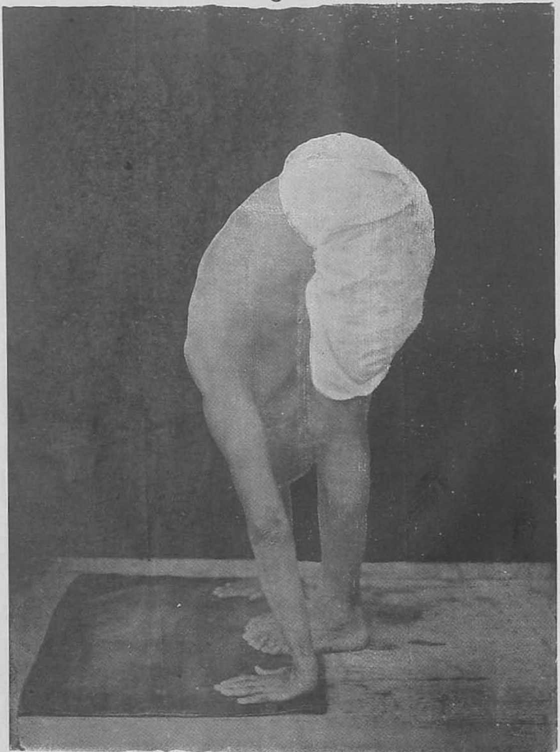
All the ten positions which constitute but one Namas-

Fig. 1.



1st Positoin, (see page 12.)

Fig. 2.



2nd Position, (see page 13.)

kār, should be performed one after another without break and with the mouth shut and breathing through the nose only.

Have an image or picture of the sun or of the deity you adore hung up against the wall in front of you. Should you have nothing to adore, paint in a vivid colour or colours on a cardboard a star or a circle and put it up in front of you, so that by looking at it you will gradually acquire the power of concentrating your mind.

SECOND POSITION — Now holding the breath, bend forward keeping the knees straight so that the palms, with fingers close together and the thumbs apart, rest flat on or near the corners of the cloth spread before you and in a line with the toes; and touch or try to touch the knees with the forehead or nose, keeping the knees quite straight. While in this bending posture, auto-suggest that you are getting health, efficiency and longevity. Exhale completely through the nose only. (See Fig. 2.)

The palms should be placed almost parallel to the sides of the cloth or at an inward angle of about 22°. Some prefer a 45° angle, while others place the palms with fingers turned inside quite opposite to one another. Whatever be the angle, the bases or balls of the thumbs should be in a line with the toes.

Most persons will find it difficult at first to attain and retain this Position. If they can touch the toes with the tips of the fingers, that is enough to begin with. The practice should be persisted in till the palms rest flat with the knees *straight*. First, the palms should be

placed in position and then the knees should be straightened.

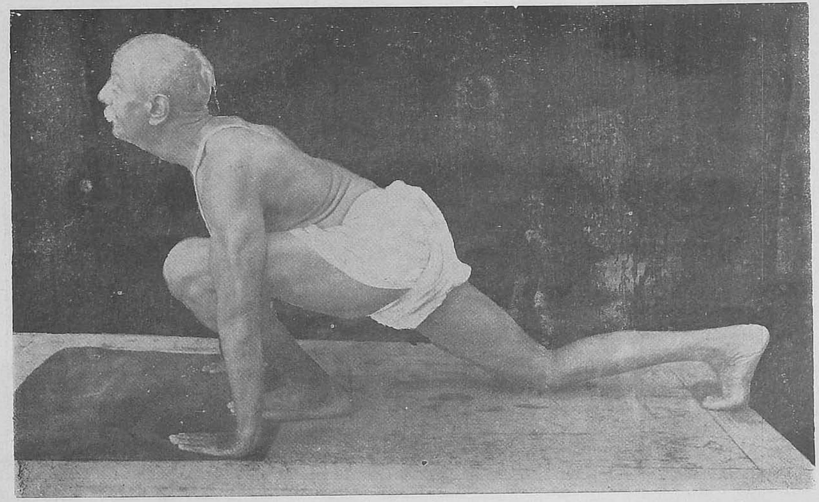
Though the finishing posture, viz., that of touching the knees with the nose or forehead will, at first, be found more difficult to attain, it can also be mastered after persistent efforts. The benefit of the Namaskārs can be realised only if this Position is correctly attained.

A certain amount of discouragement is inevitable at the beginning of all reconstructive systems of physical culture like Sūrya Namaskārs. That period must be lived through perseveringly in order to win success. " You need stick-to-itiveness in this business of developing health."

THIRD POSITION — Inhaling deeply through the nose only and without bending the arms at the elbow, take one foot so far back as to keep the arms vertical. Touch the ground with the knee and the toes, the other knee jetting ahead of the vertical arm. Look up bending the head as far back as you can. Hold the breath. (See Fig. 3.)

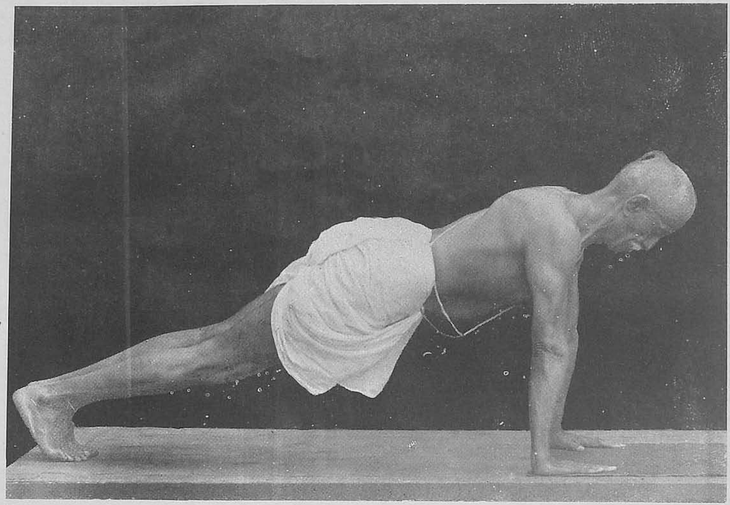
The same foot — say the right foot — should be taken back first in the first round, then the left foot in the second round and so on alternately.

Fig. 3.



3rd Position, (see page 14.)

Fig. 4.

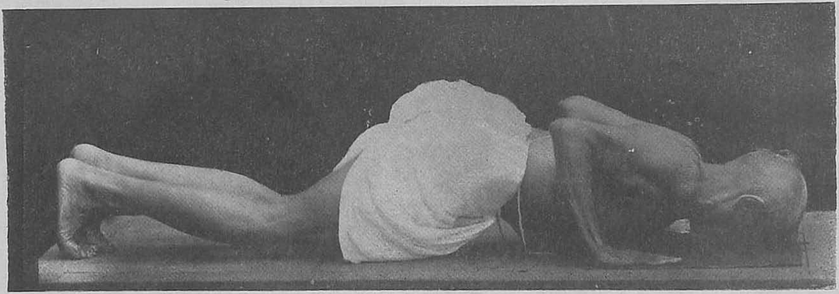


4th Position. (see page 15.)

FOURTH POSITION — Holding the breath, take back the other leg so that the big toes, ankles and knees touch each other. Keep the arms vertical. Let the hips, back and hind part of the head be almost in a line, supporting the whole body on the toes and palms. Continue holding the breath. (See Fig. 4.)

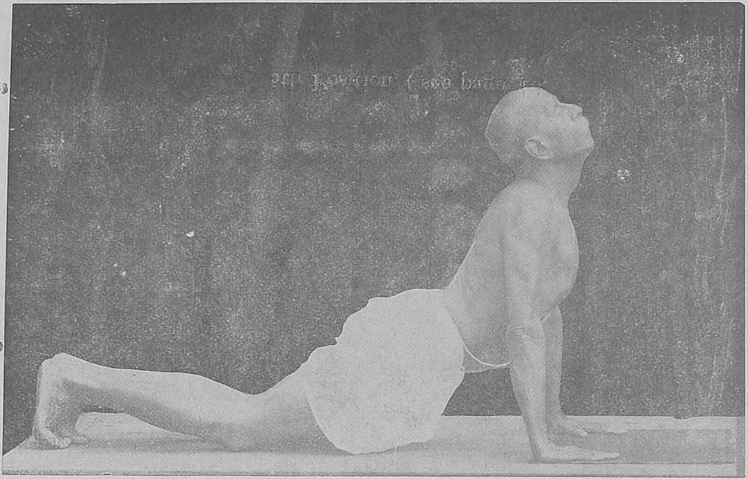
FIFTH POSITION — Holding the breath, place the knees on the ground without moving the toes and palms. Press or try to press the chin to the upper part of the chest. Touch the ground with the lower part of the chest and forehead simultaneously without bringing the tip of the nose in contact with the ground. Draw in the belly so that it does not touch the ground and raise the hips as high as you can. Exhale completely through the nose only. (See Fig. 5.)

Fig. 5.



5th Position, (see page 16.)

Fig. 6.

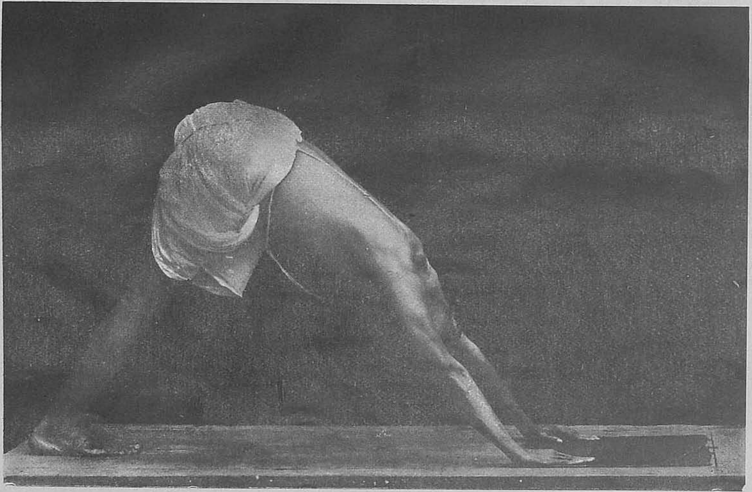


6th Position, (see page 17.)

SIXTH POSITION — Keeping the toes, knees and palms as in Position 5, straighten the arms. Inhale deeply through the nose only. Throw the chest forward. Curve the back and look up to the ceiling or roof, stretching the head as far back as you can. Hold the breath. (See Fig. 6.)

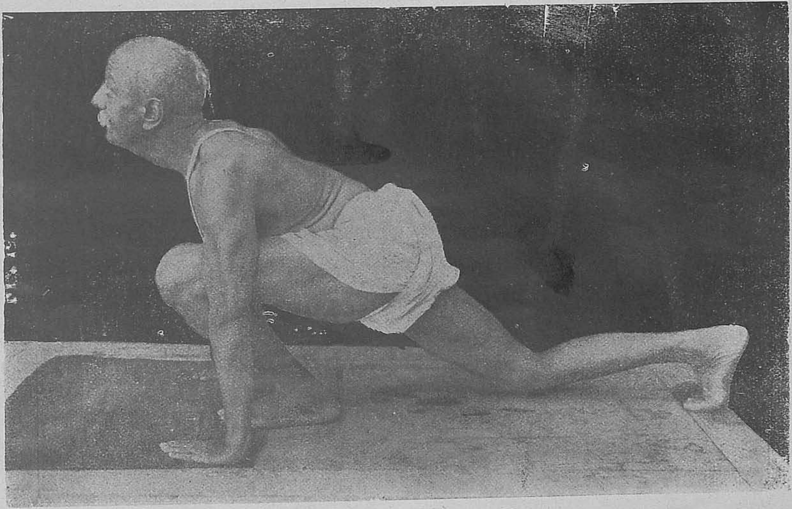
SEVENTH POSITION — Holding the breath, resume the posture as in Position 4. Slanting the arms (without moving the palms) and bending the head down, touch the ground with the heels. Continue holding the breath. (See Fig. 7.)

Fig. 7.



7th Position, (see page 18.)

Fig.8.



8th Position. (see page 19.)

EIGHTH POSITION — Holding the breath, bring forward one leg keeping the arms vertical. Place the toes in a line with the balls of the palms (the further forward they are placed the better) projecting the knee ahead of the vertical arm. Touch the ground with the other knee and toes and look up as in Position 3. Continue holding the breath. (See Fig. 8.)

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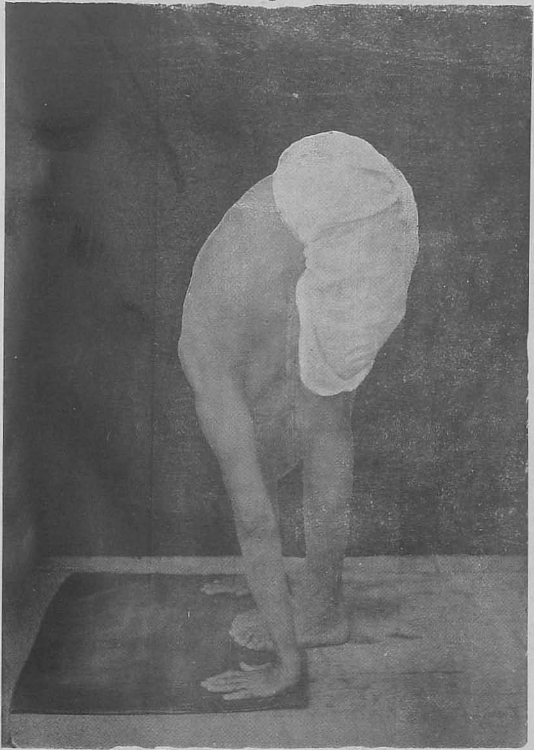
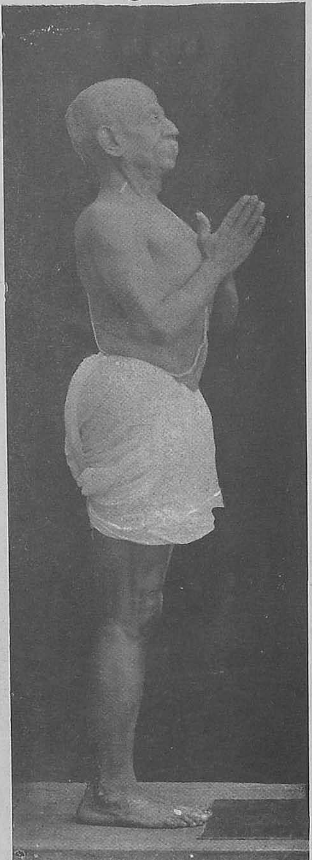
NINTH POSITION — Holding the breath, resume the posture as in Position 2 and exhale completely through the nose only. (See Fig. 9.)

Fig. 9.



9th Position, (see page 20.)

Fig. 10.



10th Position, (see page 21.)

TENTH POSITION — Taking a deep breath through the nose only, resume posture as in Position 1. Take special care that you keep the knees quite straight till you stand erect. (See Fig. 10.)

This completes *one* Namaskār, which is, as you see, made up of ten different Positions.

Say the next mantra. Shut the mouth. Inhale deeply through the nose only and repeat all the Positions with the lips closed and breathing through the nose only, as per foregoing instructions.

Sūrya Namaskārs should always be performed slowly at first so that you know by the strain which part of the body is being exercised. In this way you will see that each part of the body is separately called into play.

CHAPTER V.

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INSTRUCTIONS FOR WOMEN IN SPECIAL CONDITIONS.

As we strongly recommend the Namaskār exercise for women — young and old, maids and matrons, whether pregnant or not, and whether suckling babies or not, the following instructions, based on actual experience, will be found useful to womenfolk in special conditions:

(1.) The Namaskār Exercise should be suspended during the menstrual period, viz. from the time the menses actually begin to flow till they stop, the normal period being from 4 to 6 days. The exercise should be recommenced immediately after the cessation of the discharge.

(2.) If a lady is in the family way she may continue the Namaskār exercise as usual till she completes the fourth month of pregnancy. From the fifth month to the end of the seventh, the exercise should be modified, viz., instead of prostrating herself, she should sit from the standing position and kneel down and do other movements, the bust in this case may or may not touch the ground. From the beginning of the eighth month till child-birth she should sit or squat in any way convenient to her and only recite the Mantras loudly and clearly several times without doing any movements.

(3.) Even after the suspension of the Namaskār or other exercise, no pregnant woman should sit or lie

down in laziness, but should do light and pleasant work, such as domestic duties, walking, garden work, etc., almost till child-birth.

(4.) For two or three months after parturition or child-birth the mother should not do the Namaskārs. After this period she can safely resume the Namaskār exercise gradually increasing it till she reaches her usual quota within about four weeks.

(5.) Whenever a girl or woman cannot take or is prevented from taking, any bodily exercise otherwise than by ailment or disease, she must, as a rule, recite the Mantras loudly and devoutly five, seven or nine times daily.

(6.) When free from the aforesaid conditions, women – maids or matrons – should follow exactly the same rules that govern men in performing the Sūrya Namaskār exercise.

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CHAPTER VI.

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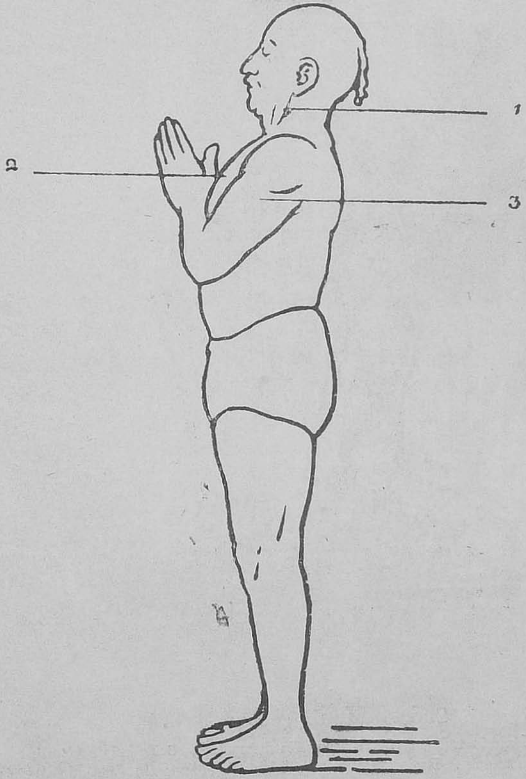
HOW THE NAMASKARS DEVELOP THE BODY AND MIND.

Let us now see which part or parts of the body receives or receive stress and strain in each of the ten Positions, and which of the principal muscles or sets of muscles are brought into play.

FIRST POSITION — Though no special muscle or set of muscles is affected, waist and neck have to be stiffened a little as the head, neck and the lower body are kept almost vertical. People with round shoulders or with a stoop in the back will feel an appreciable strain in the back. As lungs have to be inflated with deep breathing, there may also be a feeling of strain in the chest. The upper arms, forearms, wrists and fingers have to be stiffened; allowing these parts to be loose and limp will nullify the exercise. You have to inhale deeply, hold the breath, and stand firm and erect. In this position the muscles that receive some strain are sterno-mastoid, pectoralis major and minor, and triceps. (See Fig. 11.)

Fig. 11.

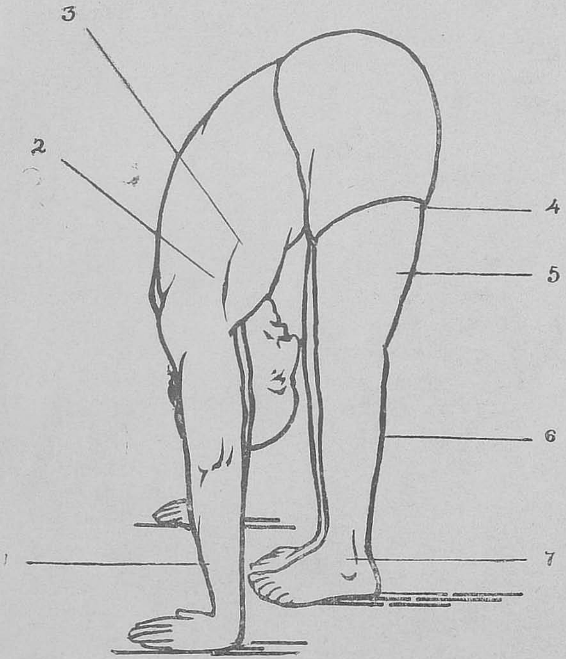


1st Position, (see page 24.)

1 Sterno-Mastoid. 2 Pectoralis Major & Minor.

3 Triceps.

Fig. 12.



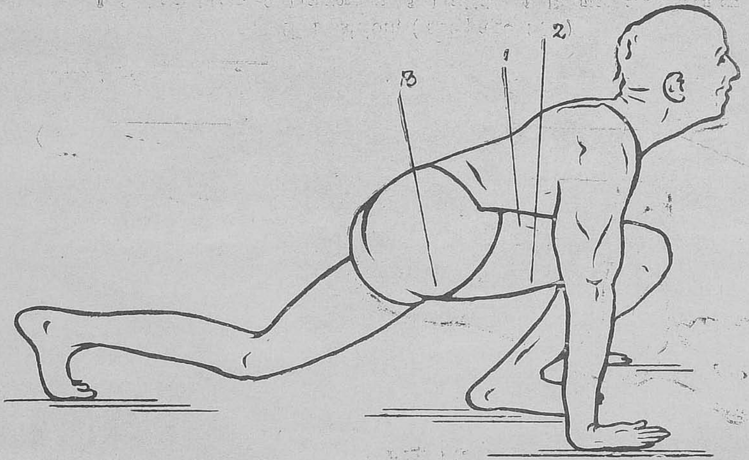
2nd Position, (see page 25.)

1 Brachio radialis. 2 Trapezeus & subscapularis. 3 Latissimus Dorsi. 4 Gluteii muscles. 5 Biceps Fimoris. 6 Hamstring (Lateral) 7 Tendo Achillis

SECOND POSITION — It is necessary to bend with the *knees straight* till the palms are placed flat about 20 or 22 inches apart on the cloth at convenient angles and in a line with the toes and to exhale completely. The palms with fingers together and thumbs apart once placed are not to be moved until the erect position is resumed at the end of the 10th Position. You will find that in this Position the muscles of the calves, the rear part of the thighs, the hips, the waist and almost all the muscles of the back and spine receive a severe strain, which means a gradual development of these parts and the elimination of the uric and other toxins from those parts, where the roots of premature decay and decline find lodgment. Special strain will be felt on big muscles joining the back and shoulders. The triceps are also brought into action. Considerable stress is brought upon the abdomen, stomach and waist muscles, while stooping forward *without bending the knees* in order to place the palms on the cloth and to touch the knees with the forehead or nose. This bending over and placing the palms on the floor with straightened knees stimulates and strengthens the " Solar Plexus. " The solar plexus is the great sympathetic nervous centre lying directly behind the stomach at the spot where the ribs divide. After bending and placing the palms, think for a moment that you are surely getting health, efficiency and longevity (auto-suggestion) and then proceed to the next move. The following are some of the muscles that receive strain in the second Position – Brachio - radialis, trapezeus, latissimus - dorsi, gluteii, biceps - fimoris, hamstring (lateral) and tendo achillis. (See Fig. 12.)

THIRD POSITION — When taking back the right foot the left thigh should press against the spleen and when the left foot is withdrawn the right thigh should exert a pressure on the liver. Similarly the muscles on the under side of the thighs should also receive hard stress. The withdrawn thigh as well as the ankles and wrists also get a portion of pressure. The muscles strengthened in the third Position are sartorius, tensor-fasciæ-latæ, and rectus-femoris. (See Fig. 13.)

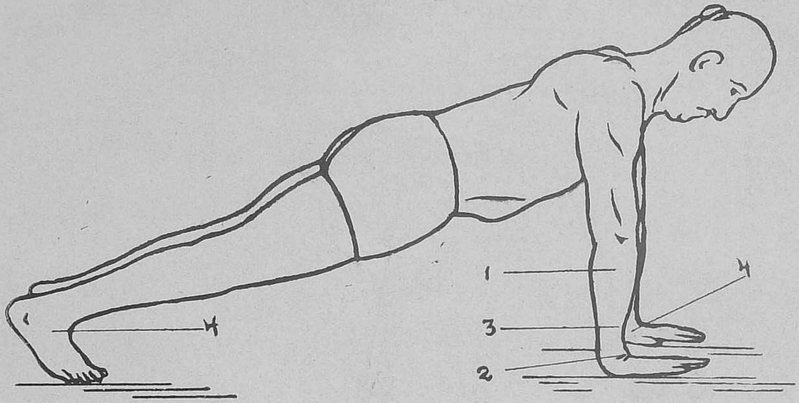
Fig. 13.



3rd Position, (see page 26.)

1 Sartorius. 2 Tensor Fasciæ Latæ. 3 Rectus Femoris.

Fig. 14.



4th Position, (see page 27.)

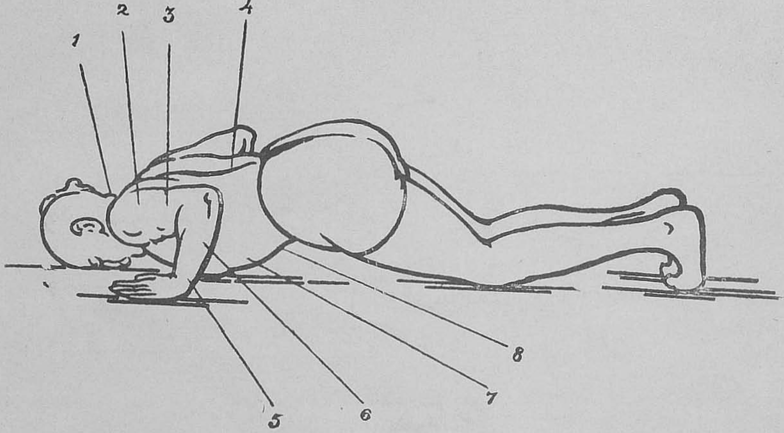
1 Supinator longus. 2 Pronator teres. 3 Brachialis. 4 Extensors of toes & fingers.

FOURTH POSITION — As the weight of the whole body is borne by the palms, forearms and toes, the following are some of the principal muscles that are brought into action: Supinator longus, pronator teres, brachialis and extensors of the toes. (See Fig. 14.)

×

FIFTH POSITION — When stooping, the head should be bent down, so that the chin presses against the upper part of the chest. The bending forward and backward of the head exercises the muscles of the neck and throat tremendously. Whilst prostrating, the whole of the body above the knees has to be supported by the hands, wrists and forearms; hence these parts get very strong. It is at this time that thə stomach is well drawn in and a complete exhalation is made. In this Position most parts of the body touch the ground, viz. – the toes, knees, hands, chest and forehead; the belly is not to touch the ground, but has to be pulled up and the hips to be raised to the full extent, consequently all the muscles of the abdomen, waist and hips are strained and strengthened. Among the principal muscles strengthened in the fifth Position are – Brachio radialis, pronator teres, intercostalis internii (internal thoracis), external abdominis, splenius capitis, deltoidius, triceps, and latissimus dorsi. (See Fig. 15.)

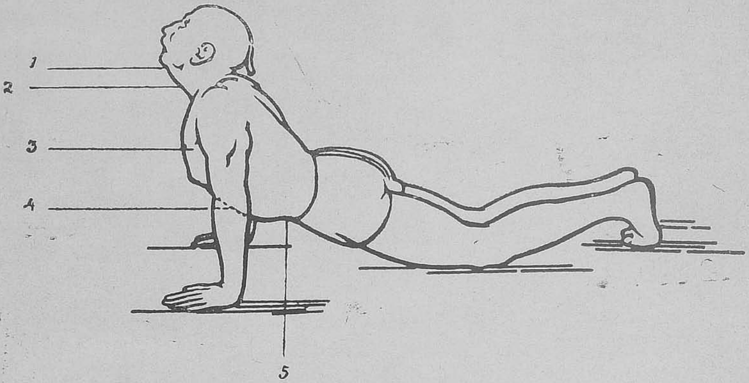
Fig. 15.



5th Position (see page 28.)

1 Splenius capitis. 2 Deltoidius. 3 Triceps. 4 Latissimus Dorsi. 5 Brachio-radialis. 6 Pronator Teres. 7 Intercostalis internii (Internal Thoracis.) 8 External abdominalis.

Fig. 16.



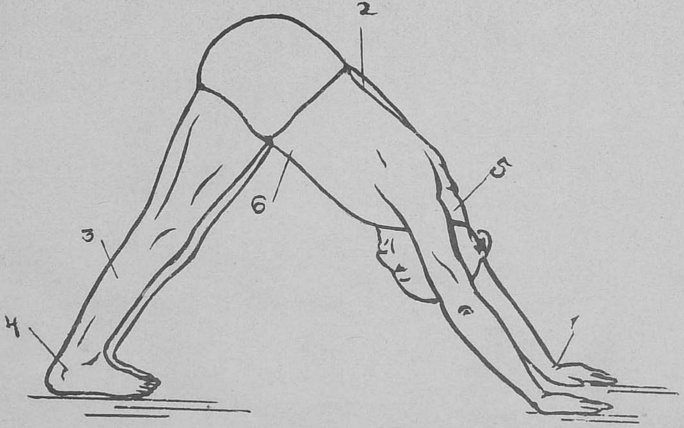
6th Position (see page 29.)

1 Sterno-Hyoideus. 2 Sterno Thyreoideus. 3 Traneversus Thoracis (Pectoralis Major)
4 Rectus abdominis. 5 Other abdominal muscles.

SIXTH POSITION — In this Position, the back should be curved in as far as it will go, with a deep, slow inhalation, and the head should be turned up in order to look towards the ceiling or roof. In this posture the weight of almost the whole body is borne by the arms, hence all their parts, particularly the triceps muscles are fully developed, rendering the arms shapely, strong and supple. The chest also receives the benefit; it becomes wider and deeper. Owing to deep breathing the fat about the abdominal regions is gradually reduced. The girth of the chest increases, whilst that of the abdomen decreases, which is a sign of normal health. And as a natural consequence, all internal derangements, such as liver and spleen disorders and bowel complaints, disappear. In this Position most of the muscles of the thighs, back, neck, and throat also get strong. As the head has to be bent forward and backward every time, all the front muscles of the throat and back ones of the neck are greatly developed. All predisposition to tonsillitis enhanced by wrong eating, gradually vanishes. And it is believed that even scrofula might be cured by this exercise. The sixth Position develops the following muscles- – Sterno-hyoideus, sterno - thyreoideus, transversus thoracis, (pectoralis major), rectus abdominis and other abdominal muscles. (See Fig. 16.)

SEVENTH POSITION — In this position the muscles of the feet, calves, hips, waist, back, neck and the upper parts of the arms are exercised. The principal muscles developed in this Position are : Extensor carpi ulnaris, lumber muscles, transverse abdominis and other abdominal muscles, flexor muscles, such as gastrocnemius, tendo achillis and neck muscles, such as capitis bravis. (See Fig. 17.)

Fig. 17.



7th Position (see page 30.)

1 Extensor carpi ulnaris. 2 Lumber muscles. 3 Flexor muscles. 4 Tendo Achillis. 5 Neck muscles. 6 Abdominal muscles.

EIGHTH, NINTH & TENTH POSITIONS — These Positions are like those Nos. 3, 2 and 1 respectivety. How the belly and sides receive pressure when laking the foot forward is explained above under the third Position.

When at the beginning you can do only one round (25 Namaskārs) the feet should be brought forward alternately, so that both the sides of the belly and both the thighs will get the strain uniformly. When more rounds than one can be done, the same foot may be brought forward in the first round and the other in the second and so on.

If, however, the liver be not in order, it is advisable that the right foot only be taken forward every time until that organ gets normal. Those whose liver complaint is hereditary or chronic had better do so always. Similarly those who suffer with spleen disorder, hereditary or caused by malaria, &c., are advised to bring forward the left foot only. In this respect, however, one must use one's own judgment.

The fact that the 2nd Position is assumed after a deep breath and with the belly well-drawn in, has the special merit of pressing the lower part of the lungs and thereby driving the inhaled air to the upper parts of the lungs and thus thoroughly ventilating the remote corners, where the tuberculosis bacilli generally find lodgment. The same good result is achieved in Positions 7 and 9.

The spine and the brain are the reservoirs of human energy – the storage battery. The spine is materially strengthened and stimulated by various movements in

performing Namaskārs. " The activity of all the vital organs is thus materially increased and a far greater amount of energy is stored away and used. "

The special characteristic of Sūrya Namaskārs is that the spine is *stretched* as may be seen from Positions 2, 7 and 9, and *compressed* in Positions 3, 6 and 8, which cannot be achieved in any other exercise. Sūrya Namaskārs, therefore, are peculiarly valuable in giving the necessary exercise to the muscles of the back, and especially of the spine, which latter generally escape stimulation in other exercises. The same remarks apply to the abdomen.

Thus the Sūrya Namaskār exercise develops and strengthens the central nervous system, which includes the brain and spinal cord. " It is the nerve impulse that imparts energy to muscles. "

There has so far been given a description of how different muscles, organs and parts of the body are developed. Let us now see what an important part the *mind* plays in these Sūrya Namaskārs.

Will-force wields such a power in every human action that nothing can be done satisfactorily without it. Therefore the one predominating idea permeating throughout the performance of this holy exercise ought to be that before, during, and after the Namaskārs, both bodily and mental powers are being developed and that they will be utilised or turned to proper use ever after. While taking any physical exercise, it must be realised that every action or movement is bettering a particular muscle or part of the body, and all will-power or mind-force must be con-

centrated in that spot. To allow the mind to wander and to do the movements, mechanically or listlessly will spoil the whole idea.

Long-continued Sūrya Namaskārs done loosely or in a slovenly manner may give the body some benefit, but the full development of every part, cure of disease, or removal of pain cannot be produced unless the whole will-power is brought to bear upon the particular part of the body while actually performing the Sūrya Namaskārs. A wood-sawyer or a black-smith possesses muscles, but though they look prominent they often lack life and resilience. A long but loose and slovenly practice of the Namaskārs might, in like manner, produce a sawyer's muscles. To avoid this undesirable result, therefore, in each stage of the Namaskārs the entire will-force must be concentrated upon every part, by turns, as it is being taxed during the exercise. Conceive that any particular muscle or part is getting stronger, firmer, better-shaped or more developed, and the object will be attained within a short time. If the mind is permitted to wander during this sacred occupation, the result will be only a muscle-bound body for all the time and trouble.

Before closing this important Chapter, we should like to present to our readers the following quotation from "The Book of Health", 1926, by Bernarr Macfadden, the father of American Physical Culture, who, it will be seen, holds the same view on this subject as we do:

"The nerves like all other parts of the body, can only be strengthened and invigorated by constant use, and to this end all exercises are useful. In fact, scientific

instructors now-a-days argue that the most important function of exercise is the strengthening of the nerves. To ensure this the *mind* must be thrown into the exercise, the movements must be consciously directed, so that the mind is actually transferred, as it were, for the time being into the parts of the body, which are being exercised. Roughly speaking, the nerves are the intermediate link between mind and muscle. It is along their course that the mandates of the will are carried. Hence the more consciously we direct the muscular energies, the stronger will the nerves become. This point is now insisted upon very strongly by army instructors. Physical exercises are given only partly to strengthen the muscles. They are designed at the same time to strengthen and invigorate the nerves.

" The Hindus, who have studied bodily control for many centuries, contend very strongly that a man should be master of every action of his body. They carry this to the extent of controlling the action of the heart, the digestion, the secretions, &c, which are normally unconscious and beyond our control."

CHAPTER VII.

THE APPLICATION OF SIGHT AND SPEECH IN NAMASKARS.

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THE USE OF SIGHT.

Sight is very useful in concentrating the mind. To secure exclusive or undivided attention of mind there might be cited Shrī Krishna's exhortation to Arjuna in the Bhagavadgītā * : "Look at the tip of your nose, don't look round here and there." While doing Namaskārs, therefore, have, as suggested elsewhere, an image of the Sun, a tutelary or guardian deity, a "swastika," or a white circular spot, hung up in front. When bending the head down, the eyes are directed to the ground, and when stretching it up, the ceiling or roof meets the eye, but while getting up and standing, with hands folded, a definite object in front is needed to help in the securing of full mental concentration. Sight is, therefore, regarded as a necessary factor of Sūrya Namaskārs.

THE USE OF SPEECH.

The principal Mantras of the Sūrya Namaskārs are :–

(a) Ōm :– It is called Ōmkār or Pranava.

(ओम्, ऑंकार or प्रणव.)

(b) The six Bīja Mantras :– Hrām, hrīm, hrūm,

* समं कायशिरोग्रीवं धारयन्नचलं स्थिरः ।
संप्रेक्ष्य नासिकाग्रं स्वं दिशश्चानवलोकयन् ॥
भगवद्गीता, ६, १३.

Continued on next page.

×

hraim, hraum and hrah.

(ऱ्हाम्, ऱ्हीम्, ऱ्हूम्, ऱ्हैम्, ऱ्हौम्, ऱ्हः).

(c) The twelve names of the sun in the form of salutation: —

Mitrāya Namah, Ravaye Namah, Sūryāya Namah, Bhānave Namah, Khagāya Namah, Pūshne Namah, Hiranyagarbhāya Namah, Marīchaye Namah, Adityāya Namah, Savitre Namah, Arkāya Namah and Bhāskarāya Namah.

(मित्राय नमः, रवये नमः, सूर्याय नमः, भानवे नमः, खगाय नमः, पूष्णे नमः, हिरण्यगर्भाय नमः, मरीचये नमः, आदित्याय नमः, सवित्रे नमः, अर्काय नमः, भास्कराय नमः).

The meanings of these twelve names are: —.

(1) Mitra = Friend of all. (2) Ravi = Praised by all. (3) Sūrya = Director or Stimulator. (4) Bhānu = Giving lustre or beauty. (5) Khaga = Stimulator of senses. (6) Pūshan = Nourisher. (7) Hiranyagarbha = Possessing power to develop energy and vitality in semen virile. (8) Marīchi = Destroyer of disease. (9) Aditya = Attractor. (10) Savitri = Begetter. (11) Arka = Fit to be revered. (12) Bhāskara = Refulgent.

(१) मित्र. (२) रवि. (३) सूर्य. (४) भानु. (५) खग. (६) पूषन्. (७) हिरण्यगर्भ. (८) मरीचि. (९) आदित्य. (१०) सवितृ. (११) अर्क. (१२) भास्कर.

(d) The three hymns from Rigveda — उद्यन्नद्य

Continued from previous page.

(One should sit) holding the back, neck and head erect, immovably steady, looking fixedly at the point of the nose, without looking around.

मित्रमहः, etc., and one hymn from Yajurveda — हंसः शुचिषद्वसुरन्तरिक्षसत्, etc. (See pp. 43 & 44.)

The arrangement in which the Pranava, the six Bīja Mantras and the three Vedic hymns or one hymn, just mentioned above, are linked to the twelve names of the sun, requires some elucidation for the reader to understand.

The three Rigveda hymns are, for this purpose, divided into twelve parts, as, उद्यन्नद्य मित्रमहः, आरोहन्नुत्तरां दिवम्, हृद्रोगं मम सूर्य, etc., and the Yajurveda hymn also is divided into twelve parts, as, हंसः शुचिषत्, वसुरन्तरिक्षसत्, होता वेदिषत्, etc. (See end of the Book.)

The Pranava Ōm (ॐ) is used once or more than once in saying each of the 25 Namaskārs. (See Chart.)

One Bīja Mantra precedes one name of the Sun.

One part of the hymn or hymns is also preceded by one Bīja Mantra.

With two names of the Sun go two Bīja Mantras and with two parts of the hymn or hymns go two Bīja Mantras.

To four names of the Sun are prefixed four Bīja Mantras and to four parts of the hymn or hymns are prefixed four Bīja Mantras.

With twelve names of the Sun, said at once in the 22nd, 23rd and 24th Namaskārs, you are to recite the six Bīja Mantras twice over and the whole of the hymn or all the three hymns, said at once, should also be preceded by the six Bīja Mantras repeated twice. (See Chart and end of the Book.)

On this scientific and convenient arrangement are based the unabridged Namaskārs as given at the end of the Book.

A MODIFIED COURSE OF SPEECH.

First of all, note that the ten Positions given in the Book and in the Chart are to be done one after another without break and that they constitute but *one* Namaskār. It takes not more than 15 to 20 seconds to perform all the ten Positions, with the Mantras as given in the Chart. Twenty-five such Namaskārs make one Round (आवर्तन, āvartana), which will require about 6 or 7 minutes.

To do one Round of unabridged Namaskārs, as given at the end of the Book, will take you a longer time as you have, in addition to Pranava and Bīja Mantras, to recite therein the Vedic hymn or hymns or their parts.

A beginner will, of course, take a little longer time than a practised hand.

You will notice that the Chart, which is intended to be used by people of every caste or creed, contains no Vedic hymns for the simple reason that non-Hindus might object to saying them. They will be found, however, in unabridged Namaskārs at the end. As the Namaskār exercise, moreover, is fast becoming universally popular throughout the length and breadth of India, it bids fair to be accepted by all the educational authorities in the country as the most suitable exercise to be made *compulsory* in all their institutions, we have purposely omitted the Vedic hymns from the Chart, so that it may be used by all – Hindus, non-Hindus, Parsis, Christians, Mohammedans, etc.

Those who do not believe in the Vedas or who do not want to include Vedic hymns in saying Sūrya Namaskārs, may say as follows : —

I. THE FIRST SERIES OF TWELVE NAMASKARS (1 - 12) IS DONE RATHER FAST:

First Namaskār — On assuming the *first* Position in the Chart, say loudly and clearly the *first* Mantra: Ōm hrām Mitrāya namah, ॐ ऱ्हां मित्राय नमः । Shut your mouth. Take a full deep breath through the nose only and go through the remaining nine Positions as directed in the Chart or Chapter IV, keeping the mouth shut and breathing all the while through the nose only. When you have thus assumed the tenth Position, it is the end of the first Namaskār and the beginning of the second.

Second Namaskār — Say the second Mantra: Ōm hrīm Ravaye namah, ॐ ऱ्हीं रवये नमः । Shut the mouth. Inhale deeply through the nose only and perform all the Positions keeping the mouth shut and breathing through the nose only. The tenth Position thus resumed is the end of the second Namaskār and the beginning of the third.

Third Namaskār — Say the third Mantra : Ōm hrūm Sūryāya namah, ॐ ऱ्हूं सूर्याय नमः । Shut the mouth. Take a deep breath through the nose only and do all the Positions with the mouth shut and breathing through the nose only. The tenth Position thus resumed is the end of the third Namaskār and the beginning of the fourth.

Fourth Namaskār — Say the fourth mantra : Ōm hraim Bhānave namah, ॐ ऱ्हैं भानवे नमः । Shut the mouth,

etc, as above.

Fifth Namaskār — Say the fifth Mantra: Ōm hraum Khagāya namah, ॐ ह्रौं खगाय नमः । Shut the mouth, etc.

Sixth Namaskār — Say the sixth Mantra: Ōm hrah Pūshne namah, ॐ ह्रः पूष्णे नमः । Shut the mouth, etc.

Seventh Namaskār — Say the seventh Mantra: Ōm hrām Hiranyagarbhāya namah ॐ ह्रां हिरण्यगर्भाय नमः। Shut the mouth, etc.

Eighth Namaskār — Say the eighth Mantra: Ōm hrīm Marīchaye namah, ॐ ह्रीं मरीचये नमः । Shut the mouth, etc.

Ninth Namaskār — Say the ninth Mantra: Om hrūm Adityāya namah, ॐ ह्रूं आदित्याय नमः । Shut the mouth, etc.

Tenth Namaskār — Say the tenth Mantra: Ōm hraim Savitre namah, ॐ ह्रैं सवित्रे नमः Shut the mouth, etc.

Eleventh Namaskār — Say the eleventh Mantra: Ōm hraum Arkāya namah, ॐ ह्रौं अर्काय नमः। Shut the mouth, etc.

Twelfth Namaskār — Say the twelfth Mantra: Ōm hrah Bhāskarāya namah, ॐ ह्रः भास्कराय नमः । Shut the mouth, etc.

II. THE SECOND SERIES OF SIX NAMASKARS (13–18) ALLOWS YOU A LITTLE MORE TIME:

Thirteenth Namaskār :– Say the thirteenth Man-

tra : Ōm hrām hrīm Mitra - ravibhyām namah, ॐ ह्रां ह्रीं मित्ररविभ्यां नमः । Shut the mouth, etc.

Fourteenth Namaskār :- Say the fourteenth Mantra: Ōm hrūm hraim Sūrya - bhānubhyām namah, ॐ ह्रूं ह्रैं सूर्यभानुभ्यां नमः । Shut the mouth, etc.

Fifteenth Namaskār :- Say the fifteenth Mantra: Ōm hraum hrah Khaga - pūshabhyām namah, ॐ ह्रौं ह्रः खगपूषभ्यां नमः । Shut the mouth, etc.

Sixteenth Namaskār — Say the sixteenth Mantra: Ōm hrām hrīm Hiranyagarbha - marīchibhyām namah, ॐ ह्रां ह्रीं हिरण्यगर्भमरीचिभ्यां नमः। Shut the mouth, etc.

Seventeenth Namaskār — Say the seventeenth Mantra: Ōm hrūm hraim Aditya - savitribhyām namah, ॐ ह्रूं ह्रैं आदित्यसावितृभ्यां नमः । Shut the mouth, etc.

Eighteenth Namaskār - Say the eighteenth mantra: Ōm hraum hrah Arka - bhāskarābhyām namah, ॐ ह्रौं ह्रः अर्कभास्कराभ्यां नमः । Shut the mouth, etc.

III. THE THIRD SERIES OF THREE NAMASKARS (19 - 21) AFFORDS A STILL LONGER PERIOD:

Nineteenth Namaskār — Say the nineteenth Mantra: Ōm hrām hrīm hrūm hraim Mitra - ravi - sūrya-bhānubhyō namah, ॐ ह्रां ह्रीं ह्रूं ह्रैं मित्ररविसूर्यभानुभ्यो नमः Shut the mouth, etc.

Twentieth Namaskār — Say the twentieth Mantra: Ōm hraum hrah hrām hrīm Khaga - pūsha - hiranya - garbha - marīchibhyō namah, ॐ ह्रौं ह्रः ह्रां ह्रीं खगपूषहिरण्यगर्भमरीचिभ्यो नमः । Shut the mouth, etc.

Twenty-first Namaskār — Say the twenty-first Mantra : Ōm hrūm hraim hraum hrah Aditya-savitrarka-bhāskarebhyō namah, ॐ ह्रूं ह्रैं ह्रौं ह्रः आदित्यसवित्रर्कभास्करेभ्यो नमः Shut the mouth, etc.

IV. THE FOURTH SERIES OF THREE NAMASKARS (22 - 24) TAKES THE LONGEST TIME TO SAY:

Twenty-second Namaskār — Say the twenty-second Mantra : Ōm hrām hrīm hrūm hraim hraum hrah, Ōm hrām hrīm hrūm hraim hraum hrah, Mitra-ravi-sūrya-bhānu-khaga-pūsha-hiranyagarbha - marīchyāditya-savitrarka-bhāskarebhyō namah, ॐ ह्रां ह्रीं ह्रूं ह्रैं ह्रौं ह्रः, ॐ ह्रां ह्रीं ह्रूं ह्रैं ह्रौं ह्रः मित्ररविसूर्यभानुखगपूषहिरण्यगर्भमरीच्यादित्यसवित्रर्कभास्करेभ्यो नमः Shut the mouth. Inhale deeply through the nose and go through all the Positions as directed in the Chart with the mouth shut and breathing through the nose only.

The twenty-third and twenty-fourth Namaskārs should be repeated exactly like the twenty-second.

V. THE LAST, THE TWENTY-FIFTH NAMASKAR:

Say the twenty-fifth Mantra : Ōm shrī- Savitri-sūrya-nārāyanāya namah, ॐ श्रीसवितृ-सूर्यनारायणाय नमः। Shut the mouth. Inhale deeply through the nose and repeat all the Positions as above with the lips closed and breathing through the nose only.(See Chart.)

Thus you have now done twenty-five Namaskārs, which make one complete Round of Namaskārs (Avartana, आवर्तन.)

The order, as shown above, of reciting these Mantras

while performing the Namaskārs is so scientifically designed by our ancient Rishis that whatever be the number of Rounds of Namaskārs, one never gets out of breath.

When, therefore, the second Round or cycle is begun, one feels almost as fresh as or even fresher than when the first Round was commenced. This feeling of freshness is due partly to the invigorating influence of the loud and full utterance of the Pranava and the Bīja Mantras, and partly to the fact that the first Cycle has shaken off inertia of rest and sleep. Hence there is no loss of breath (though there may be tiredness) even after twelve or sixteen Rounds. This is a unique advantage afforded by the proper recitation of the Pranava and Bīja Mantras.

Then also the Pranava, Mantras and hymns have to be recited in the standing posture with hands folded. During actual exertions, such as bending over, prostrating, rising, etc., all efforts are concentrated on inhaling and exhaling through the nose only and on autosuggesting that you are getting stronger and healthier.

THE UNABRIDGED NAMASKARS.

The followers of Rigveda and Yajurveda have Vedic hymns * included in Sūrya Namaskārs in addition to the Pranava and Bīja Mantras.

* The followers of Rigveda and Krishna Yajurveda say the following three hymns : –

उद्यन्नद्य मित्रमह आरोहन्नुत्तरां दिवम् ।
हृद्रोगं मम सूर्य हरिमाणं च नाशय ॥ १ ॥
शुकेषु मे हरिमाणं रोपणाकासु दध्मसि ।

Continued on next page.

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This will make the exercise a bit slower and will enable you to put more strain and concentration on that part of the body you wish to strengthen.

Continued from previous page.

अथो हारिद्रवेषु मे हरिमाणं निदध्मसि ॥ २ ॥
उदगादयमादित्यो विश्वेन सहसा सह ।
द्विषन्तं मह्यं रन्धयन्मो अहं द्विषते रधम् ॥ ३ ॥

—ऋग्वेद १।५०।११–१३.

[1] Rising this day, O, rich in friends,
ascending to the loftier heaven,
Surya, remove my heart's disease,
take from me this my yellow hue.

[2] To parrots and to starlings let us
give away my yellowness,
Or this my yellowness let us
transfer to Harital tree.

[3] With all his conquering vigor,
this Aditya hath gone up on high,
Giving my foe into mine hand:
let me not be my foeman's prey.

— Ralph T. H. Griffith, M. A., C. I. E.,
in his book, "Hymns of Rigveda."

The hymn employed by the followers of Shukla Yajurveda runs as follows : –

हँसः शुचिषद्वसुरन्तरिक्षसद्धोता वेदिषदतिथिर्दुरोणसत् ।
नृषद्वरसदृतसद् व्योमसदब्जा गोजा ऋतजा अद्रिजा ऋतं बृहत् ॥

— वा. यजुर्वेद १०।२४.

हँसः = Exhalation and Inhalation.
शुचिषद् = Dweller in the purest place.
वसुः = Making others' dwelling comfortable.
अन्तरिक्षसद् = Dweller in the mid-air (interior of the heart.)

Continued on next page.

To those who have no faith in the Vedic hymns, we would advise to put their whole soul and will into each Namaskār, as given in the Chart, if they wish to reap the fullest benefit from the exercise.

Continued from previous page.

होता = One who gives and takes.
वेदिषद् = Dweller in the altar (heart.)
अतिथिः = Moving constantly or having no fixed time of arrival and departure.
दुरोणसद् = Residing in the protective element.
नृषद् = Residing in man.
वरसद् = Residing in the excellent.
ऋतसद् = Residing in the Divine Law or Supreme Spirit.
व्योमसद् = Residing in firmament.
अब्जाः = Producer of life-fluid
गोजाः = Endowing senses with vital energy.
ऋतजाः = Maker of Divine Law
अद्रिजाः = Giving birth to what is respected.
ऋतम् = Truth, right.
बृहत् = Great.

These attributes are usually applicable to the Soul or Jivatman (जीवात्मन्), and as the sun is regarded in the Vedas as the soul § of all that is movable and immovable, they hold good in the case of the sun also.

The highest goal of the sun-adorer is ultimately to identify himself or herself with the Soul or Jivatman.

§ योऽसावादित्ये पुरुषः सोऽसावहम् ।
— वा. यजुर्वेद ४० । १७.

The Spirit yonder in the Sun,
The Spirit dwelling there am I.

सूर्य आत्मा जगतस्तस्थुषश्च ।
— ऋग्वेद १ । ११५ । १.

The sun is the soul of the movable and of the immovable.

CONTROLLING THE BREATH.

Correct and rhythmic respiration in performing Sūrya Namaskārs is absolutely necessary to produce maximum results.

Full instructions about regulating and controlling the breath will be found in Chapter IV, but being mixed up with directions about the different movements of the body involved in assuming the ten Positions, they may not be fully grasped by a beginner; we,therefore, try to explain them here graphically or rather in a tabulated form to make the matter clearer.

You might have marked from the detailed instructions both in the book and in the Chart that there are *three* full breaths (प्राणायाम) in doing *one* Namaskār, i. e. *three* deep Inhalations (पूरक), *three* Holdings of the breath (कुंभक), and *three* complete Exhalations (रेचक).

We shall, for convenience sake, designate these three stages of breath by their initial letters: I for Inhalation, H for Holding the breath, and E for Exhalation.

The following table will show how these breath-stages occur in each of the first nine Positions:

Position	1 — I, H	First complete breath.
,,	2 — H, E	
,,	3 — I, H	Second complete breath.
,,	4 — H	
,,	5 — H, E	
,,	6 — I, H	Third complete breath.
,,	7 — H	
,,	8 — H	
,,	9 — H, E	

A beginner need not worry over regulating and controlling his breath in going through all the ten Positions until he can, with a little intelligent practice, do the movements correctly — almost automatically. Then he will find it easy to manage his breath.

It is hardly necessary to observe that the daily practice of Sūrya Namaskārs does not only not interfere with, but actually adds to the enjoyment of any form of game or pastime requiring physical exertion.

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CHAPTER VIII.

HEALTH THROUGH SPEAKING.

STRENGTHENING THE VITAL ORGANS.

There must now be described the wonderfully healing and vitalizing powers – physiological as well as psychic – possessed by the apparently meaningless Pranava, Ōm and the Bīja Mantras, hrām, hrīm, etc., and how they influence several organs, such as the heart, stomach, brain, etc., and how they serve not only as a prophylactic (preventive) but as a therapeutic (curative) as well.

(a) Ōm, ॐ. This sacred syllable begins every Mantra of " Prānāyāma ", sometimes every letter of a mantra, and often it stands at the beginning and end of a mantra. The syllable " Ōm " is regarded as the essence of all Vedic learning*. The *o* in home resembles the sound of o in Ōm.

This " Ōm " precedes every Bīja Mantra or series of it. It regulates and develops the heart action, stimulates the brain and stirs up the stomach. This sacred syllable might be more accurately transliterated as " ooommm " as a prolonged O and prolonged M. The same is the case with the utterance of all the Bīja Mantras.

* ॐ इत्येकाक्षरं ब्रह्म व्याहरन् मामनुस्मरन् ।
यः प्रयाति त्यजन् देहं स याति परमां गतिम् ॥
भगवद्गीता, ८ । १३

He, who, reciting " Om ", the one syllabled Brahman, (and) meditating upon Me, goeth forth, abandoning the body, reacheth the highest goal.

(b) Next comes " hrām ", ह्रां In this all the sounds are long. The correct pronunciation like *a* in calm is 'hraaa-mmm.' The aspirate sound " h " proceeds from the heart. Everytime, therefore, you say " hrām " the heart vibrates vigorously. The process of purifying blood takes place in the heart, for the pure blood that runs to any affected part of the body is pumped out by the heart. If that blood is made pure before it reaches the affected or diseased part of the system, then only the desired result will follow, i. e., the cure of the affection or malady. Should impure or toxic blood circulate through the body the affected or diseased part is likely to get worse instead of being cured. Every Bīja Mantra, therefore, is made to sound with the initial aspirate " h " with a view to vibrate and strengthen the heart so that it should pump out pure blood only.

Just as each Mantra begins with the aspirate " h " it ends with the labial nasal " m ". Every normal respiration has to be made through the nose. It is this respiration that also helps to purify the blood. The oxygen taken in with each inhalation coming in contact with the veinous blood renders it pure and red, and there is breathed out carbon dioxide, a poisonous gas, from the impure blood. As respiration is done through the nose and wind pipe, both of these organs should be kept free and unaffected by ailment or disease, and it is for this purpose that each Bīja Mantra is made to terminate in the continual or prolonged nasal " mmmm ".

Likewise in each Bīja Mantra there stands the lingual " r " between the initial aspirate " h " and the final nasal " m ". The consonant " r " is held almost as

important as " Ōm " in the Mantra-Shāstra. (Mantra-Shāstra is that which teaches prayers, hymns, mystic formulæ, spells, etc., to be addressed to particular deities.) In uttering the consonant ' r ' the tip of the tongue strikes the front palate and tends to vibrate the brain. Hence the proper utterance of the psychic syllables " hrām " " hrīm ", etc., vibrates and invigorates the heart, wind-pipe and brain – three of the vital organs, the soundness of which is necessary to keep the system strong and healthy.

There is an elegant couplet, * in Sanskrit eulogizing " hrām " which when freely translated means :— " The mere utterance of " ra " in hrām drives out sin-toxin from the open mouth, and being afraid of its re-entrance the consonant " m " serves the purpose of a door by closing the lips ".

In reciting the Bīja Mantras one has to open the mouth for " hrā " in hrām, etc., and to shut it for " m ". Then while actually making the movements of the body in doing the Namaskārs, all breathing has to be done through the nose.

The continuous long vowel " ā " in hrām (as *a* in calm) strengthens the upper three ribs, purges (makes physically and spiritually clean) the alimentary canal of toxins, vibrates the brain, drives away lethargy (morbid dullness) and cleanses the upper portion of the lungs by stimulating them. This Bīja Mantra " hrām " will prove a curative for asthma, bronchitis and for predisposition to tuberculosis.

* राकारोच्चारमात्रेण मुखान्निर्याति पातकम् ।
पुनः प्रवेशभीत्या च मकारस्तु कपाटवत् ॥

(c) The long vowel sound " ī " in hrīm (as *ee* in seem), ह्रीं, stimulates the action of the throat, palate, nose and the upper part of the heart. The repetition of " hrīm " clears the respiratory and digestive passages of the phlegm secreted or collected there. In the first or second round of Namaskārs it is sometimes, if not often, necessary to eject the superfluous mucus from the nose, throat or mouth, but after about two rounds the respiratory and alimentary passages are thoroughly cleared.

(d) The long vowel sound " ū " in hrūm (as *oo* in room), ह्रूं, effectively excites or stimulates the liver, spleen, stomach and intestines, and reduces the abdomen. Women suffering from chronic disorder of hypogastrium (the lower region of the abdomen), will immensely profit by repeating " hrūm ".

(e) The compound vowel sound of the mystic syllable " hraim " (as *i* in time), ह्रैं, irritates the kidneys The repeated utterance of " hraim " in the Sūrya Nama-. kārs promotes urination or serves as a diuretic.

(f) The compound vowel sound of the Bīja " hraum " (as *ou* in round), ह्रौं, acts on the rectum and anus and helps them to function normally. As progress is made in Scientific Sūrya Namaskārs, it will be found that the bowels that were reluctant in their function before bathing will freely open after about half an hour or so on finishing this divine exercise.

(g) The last but not the least is " hrah, " ह्रः, which vibrates the chest and throat.

Thus all these seemingly meaningless Pranava and Bīja Mantras produce stimulation and vibration in

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different vital parts of the system, such as the heart, abdomen, throat, palate, windpipe, brain, etc., purify their blood, and consequently remove disorders, ailments and diseases in those regions. Almost every disease will be found to originate either in the head, nose, throat, heart, lungs or abdomen. When all these parts are purged of their impurities or toxins by the Bīja Mantras, the circulation of the blood receives stimulation by the vigorous movements of the limbs and organs in the process of Namaskārs. The limbs and organs, brought into play, not only develop externally in shape, size and strength, but improve also in their internal functions, endurance and power of resistance to disease, by reason of the vigorous and healthy circulation of the blood.

Thus the Sūrya Namaskārs produce a double benefit, which is a unique feature of this wonderful exercise. No other single exercise can approach the Sūrya Namaskārs in this respect.

SUMMARY.

The Pranava Ōm (ॐ) stimulates all the vital internal organs of the body, especially the brain, heart and stomach.

Hrām (ह्रां) acts as a stimulus to the brain, heart, alimentary canal, respiratory organs, such as nose, windpipe, throat, lungs, &c., and upper ribs.

Hrīm (ह्रीं) invigorates the throat, palate, heart, respiratory and digestive organs.

Hrūm (ह्रूं) strengthens the liver, spleen, stomach, abdomen, hypogastrium, uterus and intestines.

Hraim (ह्रैं) stimulates kidneys.

Hraum (ह्रौं) normalizes the function of the rectum and anus.

Hrah (ह्रः) develops the chest and throat.

CHAPTER IX.

A EUROPEAN SCIENTIST'S EXPERIENCE.

The following experience of a European Scientist will convince you of what we say in regard to the potential powers of the mystic Bīja Mantras. It is an extract of the article written by B. M. Lesser Lasario in "Physical Culture" Magazine for April, 1924 :—

I breathed my way to health; so you can.

I was born in Vienna. In early childhood I was delicate and inclined to be overstudious at school – a vice which is well enough if you keep it in its place. In my case it was considered a virtue; and they let me subsist on an unlimited diet of books till my digestion, both mental and physical, went to pieces, and left me a wreck.

From then till eighteen I was never well. At eighteen my troubles took the particularly acute and agonizing form of articular rheumatism. Doctors gave me up as hopeless.

But one day I made a discovery. I found that there was actually such a thing as the Breath of Life. I discovered that it was neither a metaphysical abstraction nor an ancient scriptural phrase, but a living fact, for which I had thirsted unknowing.

BREATH IS LIFE.

Breath is life. Control it and make an art of it, and you have under your hand a throttle that gives you

mastery of your whole being. To move a throttle is easy, if you know where to find it. It is my life work to teach others to find it and to make an art of its use. Hence this story of my return from the edge of my grave. It is not a theory; it is the tale of a thing that happened. Act on it and you may have a story of your own to tell. Sometimes it is hard to act – I know that. But this, I repeat, is easy – as easy as breathing. So to my story.

WHAT THE BABY SAID.

When I was eighteen and suffering from acute rheumatism, a neighbour brought her infant to our house and left it there for several hours in our care. The presence of the healthy child diverted me and made me forget my aches for the time. I found this baby lying on its back looking at the ceiling and ever and anon lulling, " lah, lah, lah, lah, lah. "

I asked our servant girl to undress the child and bring it to my bed. She did so. Propping myself up as well as I could, I drank every inch of its beautiful little body with my hungry eyes. It was as God had made it. Nothing had warped it yet. I compared that marvel with my own blasted and withering carcass, which so lacked beauty that it was repulsive to me, its owner.

The baby looked at me and went back to the serious business of life, cooing and singing to itself, "lah, lah, lah, lah, lah, lah." I was delighted. I held my breath to listen.

Presently I noticed something. Every time the child uttered " lah " sound, there was a clearly discernible vibration in the region of the upper three ribs. It

localised there. I tried it on myself, and felt the same thing. This was interesting. I tried another vowel sound, saying " poo, poo, poo, " many times, and felt that here the vibration localised itself further down. Then I tried to teach the baby to articulate something like " poo, poo, poo, " etc., in the hope that I could more closely observe the result of it. At first I got no results at all, but after two hours of coaxing, I did finally get it to say what I wanted. The vibration was in the abdomen.

I wondered how the vibration, " lah " gave a pronounced vibration in the upper chest, and " poo " in the abdomen. Along with that I reasoned, perhaps the mere act of singing that repeated vowel sound produced a sympathetic nervous reaction of a very far-reaching sort in other parts of the child's body. Perhaps it reached important nerve centres. If so, there was no telling how enormously significant the thing might be.

Two things were evident. First, the repetition of that sound by the baby went with a mood, a mental attitude of some sort, however, elemental; the child was happy. Second, that vibratory effect was astonishingly pronounced. I noticed that the child would keep on saying " lah, lah, lah, " continuously without taking breath; and that when its lungs were reasonably empty, it would draw a full breath and begin again. One result of this was a prolonged holding of air in the lungs; and another result was a steady prolonged contraction of the abdominal muscles and the diaphragm.

COPYING THE BABY.

I began forthwith to try out various vowel sounds

on myself. Lying there like a baby and trusting in Nature, I hummed and sang those wordless monotones for minutes at a time. At first I could not stand much of it; it made me dizzy; but gradually I became used to it. One thing I always tried to do was to assume a mental attitude that seemed to me to go with the vowel sound I used. " E ", for instance, would be bright and cheerful. " O " seemed to go with feelings darker and more grave – but, of course, not melancholy or gloomy.

When weeks later I began to recover from my rheumatism, I was uncertain whether my new hobby had anything to do with it or not. But there was no doubt at all as to its immediate effect on my general feeling. Invariably it produced results quite definite. I became perfectly sure that something was getting itself done inside of me. All my bodily functions seemed to run more smoothly; and some of the vowel sounds I practised had effects which were very local and evident indeed. The " E " type, for instance, resulted in the discharge of considerable quantities of mucus from the throat and bronchial passages. These discharges continued till those tissues regained their tone. How and why they regained it? Perhaps this method of combined breathing, humming and right feeling had helped to normalise the circulation. Perhaps one vowel might work on one part of the body and another on the other. Perhaps the various vowels I was using would cure my whole sick body. In that case, I had evidently hit upon a way to control the internal circulation and my sympathetic nervous reactions at will. Basically, it seemed a way to drive the blood in nourishing floods to any spot where the starving tissues might need it.

THIRTY YEARS' PROOF.

At that time I could not be certain of all this; I could only hope and believe. But today, thirty years later, I can affirm it positively. For I have put it to the test of use hundreds and hundreds of times. With it I have cured myself and with it I have cured others. To-day I can drive the blood to any spot in the interior of my body at will, for the purpose of either restoring or maintaining normal tissue tone or normal activity. The technique which I have developed after these many years of experiment and research is definite; it is simple, it is "as easy as breathing," it is as easy as saying "lah, lah, lah, lah."

An adequate circulation of rich, healthy blood is the central requirement on which every natural and normal therapy must be based. Every adequate method of healing is a device for restoring a normal circulation to starved and poisoned tissues; and the immediate and specific cause of death is a failure of the circulation which may be induced, unfortunately, in scores of different ways.

What I want first to establish most vividly is that any technique by which it would be possible for a man to control his circulation, to drive it hither and yon at will, would be the most patent single instrument for health that could be placed in his hands. It would not be the only condition of health, but it would be the most immediately useful and important of them all. Having thus a means of control, he would henceforth be like an engine-driver with his hands upon the throttle.

What I have found in my system of vowel breathing is a throttle for the control of the human body; and it acts by governing the internal circulation.

IMAGINARY OR REAL.

Does it really control, or do I merely imagine the control and so benefit from a vivid bit of auto-suggestion? I answer from the experience of thirty years that the control is real, and that the proof of the pudding is in the eating. Try it. If you stand up and breathe deeply through your nose eight or ten times, emptying your lungs as completely as possible, you will experience certain definite sensations. If you are not used to the exercise, dizziness will be one of them. You will, as it were, get drunk on oxygen. The dizziness will be caused by changes in the circulation. If anyone should try to tell you that it was the result of any auto-suggestion, you would laugh. You would understand that the breathing had done it. The same is true even in a greater degree of my method of vowel breathing, which is quite different from any other method of breathing and produces other effects which are important, and which are apart from the mere taking in of oxygen. For instance, it produces, as I have already said, reactions of the sympathetic nervous system. Singers experience such reactions and that is one reason why singing is beneficial. The sympathetic nervous system controls both the circulation of the blood and the activities of the endocrine glands and of the vital organs. My method of vowel-breathing puts it to work.

Perhaps I should make this reference specific. The man who doubles his fists and scowls can easily pass him-

self from a condition of mental and physical placidity to one of anger. His face flushes, his heart beats faster, his adrenal glands pour stimulating harmones into his blood, his circulation alters. The sympathetic nervous system has been put to work. In like manner, he who shapes his lips into a smile and his eyes to twinkle, may change his mood. Similar is the case with the assumed feeling of love, pleasure, fear, melancholy, etc. All this change of mood is due to the reactions of the sympathetic nerves.

Our daily speech by which we express what we think and feel, is based on the five vowel sounds, A, E, I, O, U. Each uttered emotional sound, therefore, goes with and produces a definite effect on the sympathetic nervous system.

What is violin, the most powerful emotional instrument in the world save the human voice which it so resembles but a device for the uttering of vowel-sounds? What are the violin-sounds but vibratory effects? And if you produce chosen vibratory effects with your own voice in your own body, who shall place a limit on the things you may do to yourself?

Have you ever observed the action of a dog, deer or snake when certain tunes are played? Vibration? It would be a daring man who would set a limit to the meanings and uses of sounds-sympathetic, significant and mystic sounds. *

Such is the foundation on which I have builded. Would you try the application of these ancient truths?

* These are what are called "Mantras" in India.

Here then, is the method you must use.

VOWELS FOR HEALTH.

You first imagine the vowel; you imagine it emotionally. Then you hum it. Each vowel so imagined, so hummed or breathed, has its own particular field of action.

The " E " type affects the palate, throat and head.

The long " A " type, as in ape, reaches the gullet, throat and larynx.

The broad " A " type, as in father, touches the upper part of the lungs and chest.

The long " O " type, as in on, goes deeper into the lower lung, chest and diaphragm.

The " O O " type, as in school, works on the liver, stomach and intestines.

All told I have worked out thirty-two sounds and combinations which can be applied according to the needs of the individual.

The method of their application is simple. It consists of four stages, as follows :—

First, you prepare yourself as for a *sacred action*. By that I mean that you collect and concentrate your thoughts on the particular feeling appropriate to the vowel. This is utterly essential. Without it the exercise is far less effective. Suppose, for instance, that you are starting with " E ". Assume with your mind and with your countenance, a light and happy expression,

with your lips half smiling, and your eyes narrowing and showing your pleasure. Let there be nothing enigmatic about this. Let it have no mystery and no reservations. Make it real. If you should try to combine with the "E" the mood that goes with "O" or some other vowel, the exercise would be robbed of its effectiveness, both for your mind and for your body.

Second, having prepared yourself as for a sacred action, you inhale, with shut mouth, on this soul-formed gesture. The breath taken should be deep and complete. Try "E" in this manner.

Third, hold your breath; hold it for one, two, three or four seconds, according to your condition, and what you can easily do. Later you will increase the time. While holding your breath, keep your mind clearly on the vowel. There is a reason for this, as you will find when you have become more experienced with the method. The involuntary organs which are affected by the particular vowel you have in use undergoes a certain tension and certain changes in the blood supply owing to the activity of the sympathetic nerves you are setting in action by your thought of the vowel. If this sounds absurd I can't help it. I am dealing with facts. The thing happens. It has been tested out in the laboratory by the most delicate instruments known to science; it has been put under the X-Ray by the great Professor Hajek of Vienna; and the result is a simple matter of record.

INTERNAL MASSAGE.

This change in the internal blood supply is a kind of internal orthopaedic massage. It cleanses, it removes

waste matter, and it carries nourishment and building material to starving and ill-nourished cells. It is mild, it is gentle, and the results, if persisted in even for a few weeks, are amazing.

Fourth, having prepared yourself by visualizing the vowel, and having next inhaled upon that vowel, still visualizing the vowel, you now exhale, humming the vowel itself and never releasing your imaginative hold upon it. For instance, " P-EEEEEEEEE " etc., till your lungs are as empty of air as you can readily make them without extreme effort. Repeat the whole operation and try doing it every day before meals.

Do likewise with " PEOOOOO - HOOOOO ", etc. Note the shift to *the aspirate* " H ". It gives an *extra impulsion* which is important. The " PEOOOOOOOOO " type should be uttered as if it were being blown out through pointed lips. The appropriate feeling to go with this vowel is grave which does not mean anything depressing or melancholy.

I cannot too strongly insist that this method should be done exactly as I have described. It is as easily done right as wrong. Done wrong it is worthless.

In an article of this scope, it is not possible to give all the vowel combinations and their uses. I can, however, set down the most important. They more than cover the needs of most persons.

The " E " type has its effect upwards. It acts powerfully on the heart and the brain. It is especially suited in cases of headache, and for some forms of heart trouble.

It has an excellent effect on persons of the so called bilious type, those given to moodiness and irritability.

The " A " type as in " labor " cleanses and renovates the throat, larynx, and glottis. This type is especially popular with singers, teachers and others who continually use their voices. It gives tone to the mucus membranes involved. It acts on the thyroid glands, the enlargement of which is known as goitre; and I have seen hundreds of cases of goitre of long standing blown away, so to speak, by the persistent use of this exercise.

The " A " type as in " lah " works on the gullet, lifts the upper three ribs, and stimulates the brain. It prevents heart-failure and has pronounced effect on the upper lobes of the lungs, where tuberculosis generally starts and should be used by persons predisposed to it. This same type is indicated for persons who have to work in a bent attitude and in badly ventilated rooms.

The combined " AO " type as in " water " goes somewhat deeper. It vibrates the middle of the chest. It is beneficial after pneumonia or pleurisy, and clears up the scars which these diseases leave.

The " O " type as in " God " influences the region of the heart. The gesture is one of awe. The type should be applied only after preparation and proper directions.

I have worked out a special exercise for vibrating the heart, which I call " mmmmm-POmmmmm ". This may only be done once a day, and should be avoided by persons with a weak heart until they have worked up to it by exercise " mmm POmmm PAAAAEEEEEEE ".

The " OE " type, as in the German word *Moive*, works on the diaphragm, liver and stomach region.

The combined " OOII " influences the kidneys and is felt plainly as an upward orthopaedic massage. The " V " is the German modified U, as in Uebel. If you have never learnt this sound, start to say " u " and make it " ye " instead, holding your lips as if for " u " and you'll have it.

The " OO " type as in " smooth " acts on the organs of the whole abdomen. I call it the abdominal type. It can cure constipation of long standing. Women find it beneficial in its effects on the pelvic organs.

The combined " OO – EE " type acts directly on the rectum and restores tissue tone of that often neglected and abused part.

Beginners should start with the " E " and " OO " types, five times each before meals. Sick perons will find three times enough.

Later come the three types " E " " AI " and " A ". These I call life's treble accord, because they are beneficial to everybody.

:O:-

CHAPTER X.

REPLIES TO SCEPTICS.

With the Peshwas disappeared the hardy race of the Bapu Gokhales, the Bhavanrao Pratinidhis and the Mahadji Sindes, and they were succeeded by a race of Government officials, whose birth, training and tradition were diametrically opposed to their predecessors. This new nobility held up before their children the ideal of study at the cost of health, of success in examinations, and of securing Government service. They laughed and scoffed at the health and animal spirits of their own and their neighbours' boys and delighted to taunt young men with being fit for carrying water and doing similar menial offices in the house of their more fortunate (because of early examination - passing and early Government service - getting) brethren. This attitude towards physical exercise was the dominant feature of the last two or three generations, and one is not sure that it has disappeared altogether even now. Signs of hope, however,are clearly discernible in the present young generation in their love of sports, gymkhanas and the boy - scout movement. But one feels doubtful how far these movements have developed a real love for physical health and efficiency.

A conquered nation gradually loses its self - confidence and ultimately becomes almost a blind follower of the conquering nation in its superficial forms of conduct and vices and not in its characteristic virtues such as patriotism, unity, self-respect, etc. In these degenerate days, people

who have lost confidence in themselves are fond of railing at their ancient culture. Most men are swayed by the fallacious argument that had their ancient civilization been good and sound, they would not have been reduced to the present deplorable condition. At one of the convocations of the Hindu University even an enlightened and cultured personage made light of our ancient civilization. It is no wonder then that the common run of people should entertain the same view, and try blindly to ape the foreigner in almost every thing, and not only betray mimicry in the mode of eating, drinking, dressing, talking, walking, etc., but think that their own religious ideas and conduct should be moulded according to the Western pattern. But being quite ignorant of what works exist in our ancient Vedic, puranic and scientific literature and of what subjects they treat, the ordinary people can hardly be expected to know or search for the secrets and truths our literature of divine authority contains. Adding impertinence to their ignorance, they vilify our Vedas and Shastras, inveigh against our ancient culture, and stigmatize our Purans as "Shimga slang," and as a consequence, give up or try to give up their ancient culture all at once. Such is the degenerating influence brought about by blind imitations of the West.

On the other hand, those who had full faith in the Mantra-Shastra and studied our books, such as Rudrayamala, Patanjali's Yoga Shastra, etc., were not able to make their teaching acceptable by presenting it in terms of modern medical and hygienic science.

We had, therefore, to wait till a Coue appeared to

teach us the value of "Japa" or a constant meditation upon an idea, or a Leser Lasario came our way to tell us what psychic and therapeutic values were contained in the Bīja Mantras, or a Haddock appeared to instruct us in the value of will-power, or a James arose to enlighten the world in respect of the science of psychology. Any one who reads the works of these authors even cursorily and compares their teachings with those of our ancient "rishis" will not fail to be struck with wonder at the deep wisdom of the latter and to bow down his head in speech-less adoration.

Quite unarmed as they were with the mechanical appliances available to modern science, our "rishis" discovered truths which elicit our warmest admiration today. A few of the most striking are herewith cited :—

(1) It might be news to most of our readers to be told that the catheter is mentioned in the Atharva Veda, whose antiquity cannot be brought later than 3000 B. C., and that the surgeons of the times of the Rigveda could fit up a metallic leg to a woman so as to enable her to move about. *

(2) The ancient Rishis appear to have known something of higher mathematics also. They were very fond of using a phrase which may be rendered :– " If

* (१) प्रतिजंघां विश्पलाया अधत्तम् ।

And a new leg for Vishpala provided

— Rigveda, 1, 118, 8.

(२) चरित्रं हि वेरिवाच्छेदि पर्णमाजा खेलस्य परितक्म्यायाम् ।
सद्यो जंघामायसीं विश्पलायै धने हिते सर्तवे प्रत्यधत्तम् ॥

— ऋग्वेद, १।११६।१५.

Continued on next page.

infinity be subtracted from infinity, the remainder is infinity." †

(3) There is a story in Purans that Soma married the 27 daughters of Daksha and that four of them brought forth the four planets – Mars, Mercury, Jupiter and Venus. It was only the great astronomer Bentley who could read in these marriages a concealed reference to the conjunction of the Moon with the several planets in those constellations. Bentley's calculations were checked by Hindman and it may now be asserted that the Puranic story refers to astronomical phenomena which took place within the course of sixteen months about 1424 and 1423 B. C.

(4) We learn from the testimony of Greek historians that at the time of Alexander the Great there were physicians or Vaidyas in the Punjab who could successfully cure cases of snake–bite, and whom Alexander was perforce compelled to engage when his Macedonian physicians confessed their inability to deal with such cases.

(5) The researches of Mr. Clements and Rao Bahadur Deval of the Philharmonic Society of Western India, are well known to many. Rao Bahadur Deval has shown that the theory of harmonical progression as worked

Continued from previous page.

When in the time of night, in Khela's battle, a leg was severed like a wild bird's pinion, straight ye gave Vishpala a leg of iron that she might move what time the conflict opened.

-- Rig. Griffith, P. 156.

† पूर्णस्य पूर्णमादाय पूर्णमेवावशिष्यते ।

out by the Indian author of the "Sangita Ratnakar" may be described almost in the same words used by the great physicist Helmholts. And it is known that the author of "Sangita Ratnakar" had no tuning fork with him.

(6) Modern researches in science, conducted by eminent scientists like Sir Jagadish Chandra Bose, have proved that the Moon exerts its influence on the vegetable kingdom.

In "Physical Culture" for April, 1927, Bernarr Macfadden says, "Only recently have scientific men found that the light of the Moon, being polarized or reflected light, has a very stimulating effect on vegetation, so that the old belief of the farmers that root crops should be planted in the dark of the Moon and foliage crops in the light of the Moon, would seem to be borne out in spite of what scientific men have hitherto dubbed as rustic superstition."

Mark what Shri Krishna says in this connection in his Gita, Chapter XV, verse 13 :

पुष्णामि चौषधीः सर्वाः सोमो भूत्वा रसात्मकः ।

"I, in the form of the moon, who is the very life of all the vegetable essences, rear the whole plant world."

The foregoing instances will doubtless suffice to convince a thoughtful modern sceptic of how solemn, deep and far-reaching are the thoughts of the ancient rishis and authors of India, and that he must think thrice before scoffing wholesale at the ancient Vedic and Puranic literature.

Nor is it suggested that the reader should take things on trust. Everyone can do the Sūrya Namaskārs with the Bīja Mantras and see what benefits accrue.

FURTHER OBJECTIONS ANSWERED.

One often hears men and women who ought certainly to know better, asking, in all seriousness whether physical exercise is advisable or necessary in the case of women, children and old men; whether Mantras have any practical value; whether there is any necessity of the sun to fix one's mind upon, etc., etc. Such objections will now be answered.

[1] EXERCISE FOR WOMEN.

To those who hold that women do not need any exercise it should be emphasised that woman–the mother–is, as the Indian poet says, " The mine of heroes and great men, ‡ " and that you cannot expect a weak and sickly mother to bear healthy, strong and long-lived children. The *summum bonum* a girl should aspire after is to become a good strong healthy mother. Motherhood is a divine privilege. It is only a *strong and healthy* mother that will bring into the world splendid, healthy and stalwart children.

" The physical standard of any nation " says Dr. Jonas Sliupas in " The Overseas Daily Mail, " April 9, 1927, " is based upon the general physique of its *women.*"

‡ नारीनिंदा मत करो। नारी नरकी खान ॥
जिस खानसे पैदा हुवे ध्रुव पेहलाद समान ॥
— Kabir.

Is the present generation of our young girls and women a model of physical perfection? No one can deny that they are not.

Is it not a fact that in most cases they come of parents who have rarely enjoyed normal health?

Is it not a fact that so-called girls' schools in the cities are no more than mere pens, in which they are made to sit three hours in the forenoon and two or three hours in the afternoon with no adequate provision for outdoor play or games, which are all the more necessary since the old mode of life is changed and girls no longer take their part in laborious household duties, such as grinding and pounding corn, drawing or fetching water, doing the family washing, ect., and when the old games such as – *phugadi*, *zimma*, *kombda*, etc., are no longer in favour?

Is it not a fact that the modern girl attains what may be called a diseased precocious mental puberty long before her body is properly developed to enable her to fulfil her duties as wife and mother?

Is it not a fact that many of our young women and girls fall victims to the dreaded tuberculosis and other diseases?

Is it not a fact that our maids are averse to marriage because of the duties of motherhood?

Is it not a fact that there is a general dread of motherhood in the minds of our young wives?

Is it not a fact that there is an appalling infant mortality amongst our city dwellers?

Is it not a fact that very few young mothers are able to suckle their children and that the widely - advertised " foods " have to be depended upon simply because the mother is a mother when she is hardly fit to be one ?

Is it not a fact and a shame that, while Life Assurance Companies* in Europe and America accept women's lives on equal terms with those of men, no Life Assurance Co. in India will accept the life of an Indian married woman on any terms ?

The only remedy to improve this most deplorable state of things is to put our girls and women through a scientifically - designed course of physical culture like our Sūrya Namaskārs. There is no doubt at all that girls and young women derive benefit from these Namaskārs. Indeed, cases are known of matrons of fifty who only after a short course of these Namaskārs have almost regained their youth. Hence for maid or matron, for sweet seventeen or ripe forty, Namaskārs are the ideal exercise.

To those readers who are favourably circumstanced there is recommended at least a cursory perusal of numerous magazines on physical culture that have recently been started in India, Europe and America, and of the large output of literature about the new-born science of

* Under Government Annuities Act 1882, *any* person between 14 and 65 can insure through the medium of the Post Office Savings Bank for any amount from £ 5 to £ 100; and the life of a young person between 8 and 14, can be insured for £ 5.

— " The Encyclopædia Britannica, " Eleventh Edition, Vol. XIV.

eugenics. All who study these carefully will be convinced that the same course of physical training as is prescribed for men is also found beneficial in the case of women, of course, with necessary changes.

There are, therefore, no grounds for the objection against physical training for women.

(2) VITAL CAPACITY LIMITED.

There are a large number amongst us who are afraid of physical exercise lest they suffer from heart affections, indigestion, or be muscle-bound. Recently papers also are devoting articles to discussions about professional athletes and wrestlers dying prematurely of heart-trouble, indigestion, etc.

To these alarmists it can be answered that none of these evils is due to *any system* of exercise, let alone Sūrya Namaskārs. Most Indian pahilvans are obsessed with the notion that one who can do 500 "dands" or "jors" is necessarily stronger and healthier than one who can do only 400, though the latter might really be the stronger and healthier of the two. Dominated by this idea, the pahilvan always seeks to advance his muscular system over his vital capacity, and as a necessary consequence suffers either from heart–affections or muscle–binding. As to indigestion, the number of victims claimed by this ailment is very large indeed. The pahilvan's logic is that the more food he can consume the stronger he is. While youth and vigorous exercise continue, his faulty logic appears to him convincing enough, but when age comes on and forces upon him the wisdom of reducing his ex-

ercise, he is yet unwilling to learn the more important lesson of reducing his diet also. Instances of harmful effects from exercise, are mostly due to over-eating, wrong eating, or stimulating and other devitalizing excesses. It is this love of gormandizing that is responsible for all the ills from which a pahilvan– and many an ordinary person as well –suffers in after life. The system of exercise has absolutely nothing to do with it.

" There is, " says Bernarr Macfadden, in his ' Book of Health, ' " no more dangerous fallacy in the world than the idea that the strength of the body is maintained solely by our daily food, and consequently that the more we eat, the more strength we have. This is by no means the case. In fact, it has been demonstrated that those who eat *least*, are often possessed of the *greatest* energy. "

" The trouble with the athlete is the trouble with the average man: He dissipates — viz., he leads a loose life, addicts himself to drinking, overeats, undersleeps, &c., —and that shortens his life. Dissipation kills him. Athletics do not. "

— Farmer Burns, in " Physical Culture " for Aug. 1928.

" Vyayam, " a monthly magazine of Baroda, published in its March (1925) issue a brief account of Captain Phanindra Krishna Gupta. There it says, " In his efforts to surpass his rival athletes and wrestlers, he ate too much of hard foods by way of regimen like other wrestlers and was soon down with indigestion. Now he does 2000 " dands " and the same number of " baithaks "

×

every day and yet his daily diet is very simple and apparently meagre, consisting of rice, pulse and a little fish, like that of an ordinary man".

Thus professional wrestlers and athletes ruin their lives in both ways: by over-exercise done too fast and by over-eating.

It is, therefore, that our wise ancestors have included the Pranava, Bīja Mantras and Vedic hymns in the Sūrya Namaskārs. These Mantras, etc. in addition to being prophylactic and therapeutic, keep one from overstrain. When systematically performed a round of 25 Namaskārs, accompanied by the Pranava, Bīja Mantras and Vedic hymns, will not take less than seven or eight minutes.

Let all alarmists, editors and our critics, therefore, take courage and address themselves manfully to a course of Sūrya Namaskārs, and there can be guaranteed to them a vigorous youth, a hearty old age, and, more important than either, *healthy children.*

(3) GIVING PUBLICITY TO WISDOM.

Some Dharma-Martands (Knights Errant, or rather knights erring, of religion), who pose as the preservers of our Vedic religion, charge with sacrilege those who are making these Bīja Mantras, Pranava and Vedic hymns known and accessible to the non-Brahmins. To these it should be pointed out that when their sacred books have been studied from cover to cover by savants of Germany, France, England and America, it is no part of wisdom to keep such knowledge from our own people, Brahmin or Non-Brahmin. The shastras contain many powerful mantras, but they yield their fruit only to him who

possesses the necessary courage and perseverance to pass through the severe discipline required. A mere knowledge of the words and syllables is useless, for it must always be remembered that you get out of your exercise, as you do out of life, *what you put into it.* ¶

It may also be pointed out that the Brahmins of old have been rightly or wrongly charged with deliberate concealment of wisdom from their non-Brahmin brethren. It is not necessary here to examine the justice or otherwise of this charge, but the fact should be impressed upon our readers that nothing should give us more genuine pleasure than to see our non-Brahmin brethren do these Sūrya Namaskārs. To the Brahmins it should be pointed out that when intelligent and scientifically minded foreigners like Lesser Lasario have, by altogether independent lines of research and enquiry, alighted upon the secret of the vowel sounds or the rudimentary Bīja Mantras, it would be the height of folly to conceal the wisdom of the "rishis" from their own people.

(4) BUILDING GOOD FOUNDATIONS.

It is hardly necessary in these days to emphasise the necessity of physical training in the case of young boys and girls. The foundations of a healthy physical life should be laid as early as possible and it is far wiser to form habits of exercise and health than to seek for

¶ ये यथा मां प्रपद्यन्ते तांस्तथैव भजाम्यहम् ।

— भगवद्गीता, ४, ११.

"I serve men in the way in which they approach Me, i. e. I give to each worshipper what is proper for him."

— K. T. Telang, M. A.

lost health, when it is perhaps too late, and then to rail against exercise or one's misfortune.

(5) POSTPONING OLD AGE.

The case of old men stands on a footing of its own. There are men like the venerable Rao Bahadur Deval, (aged about 82) who have reached old age after a clean, plain, useful and strenuous life, and to such it is suggested that they submit themselves to a moderate course of Sūrya Namaskārs in order that their useful and active life may be prolonged so as to enable them to accomplish the beneficial objects which they have at heart.

There is another class of old men on whom senility is forced by misfortune in the shape of compulsory residence in crowded cities, sickness, bereavement or other reverses in life; to such the course of Sūrya Namaskārs is eminently useful, in that it ministers not only to the body but to the spirit as well.

The third class of prematurely old men consists of those who have played ducks and drakes with their health and youth and have thoroughly ruined their constitutions and have been given up by doctors. Even to these old sinners there can be held out a promise of redemption, if they be like children and follow faithfully the course of Sūrya Namaskārs.

"If there is anything the world loves more than the freshness of youth, it is the youth of old age. To defy and hold back senility is like triumphing over fate."

"One may postpone old age by proper exercise, and after old age has set in one may restore some degree of youth by exercise. This kind and amount of exercise must depend upon the individual condition; but one cannot expect to have good blood, good circulation, good nerves, good elimination and manifestation of good vitality without at least some exercise *daily* and *regularly*. Daily walking, and deep breathing and spine stretching are particularly valuable in age".

— Bernarr Macfadden in "Physical Culture," for November, 1926, page 86.

"At the present time the most dangerous menace to life and health lies in the prevalence of digestive, kidney and pulmonary disorders —insidious disorders —the presence of which is rarely even suspected until the body defence has been undermined and the gnawing tooth of disease has eaten away the prop of life. Especially are these conditions to be dreaded after creeping age has slowed the powers of repair and retarded recuperation."

— "Physical Culture" for April, 1928.

It has been said that man begins to die the moment he is born. The inevitable end, however, can be postponed for a long, long time, if only we learn to rid ourselves of the products of decay by proper exercise, simple natural diet and clean life. If we ever really learn to do this, we should, barring accidents, live far beyond the limit of one hundred years.

It is not mere longevity or extension of life that counts, but whether one has achieved a great measure

of usefulness and happiness, whether one has made any contribution to the world's well-being and whether one has been doing all what one can do for oneself and for mankind at large is what matters. This can be achieved by systematic, regular and daily performance of Sūrya Namaskārs.

(6) THE VALUE OF THE SUN.

A great majority of the present generation say that Mantras and Tantras are all humbug. "I have", said a gentleman to the writer recently, "absolutely no faith in the mantras. I won't say any mantras in doing Namaskārs". There are others who seriously question why the Sun should be bowed to. These are simply referred to Lesser Lasario, already mentioned, and to what Ernst Haeckel, a most determined free-thinker and scientist of Germany, says in his famous work "The Riddle Of The Universe". Says Haeckel, "The sun is the deity of light and warmth, on whose influence all organic life insensibly and directly depends. Sun-worship (solarism or heliotheism) seems to the *modern scientist* to be the *best of all forms of theism*, and the one which may be most easily reconciled with modern monism. For modern astrophysics and geogeny have taught us that the earth is a fragment detached from the sun, and that it will eventually return to the bosom of its parent. ... ... Indeed the whole of our bodily and mental life depends, in the last resort, like all other organic life, on the light and heat of the sun. Hence *in the light of pure reason*, sun-worship, as a form of naturalistic monotheism, seems to have a much better foundation than the anthropistic worship of Christians and of other monotheists who con-

ceive their god in human form. As a matter of fact the Sun-worshippers attained thousands of years ago a higher intellectual and moral standard than most of the other theists. When I was in Bombay in 1881 I watched with the greatest sympathy the *elevating* rites of the pious Parsees who standing on the sea-shore, or kneeling on their prayer-rugs, offered their devotion to the sun at its rise and setting."

— "The Riddle of the Universe," Chap. XV.

Had the great philosopher scientist observed people like us actually doing Sūrya Namaskārs, he would certainly have been much more sympathetically impressed.

The following additional quotations will convince the reader why the sun in particular is held as the object of worship in our Sūrya Namaskārs.

But before citing these opinions, yet another effort should be made to impress upon the reader with all possible emphasis the dictum that physical exercise is more potent as a *preventive* than as a curative of the ills to which the human body is s u b j e c t. "For hundreds of years medical science and medical practitioners have been trying to cure ailments and diseases with drugs and knife all over the world, but they have never been able to eradicate disease from the face of the earth. Is it possible to do so ? Yes, we venture to say, if the medical and hygienic sciences, the government and the public all direct their energies to find out and remove the *causes* of disease and to take care not to allow them to recur. For, however potent be the measures such as medicines,

serums, surgical instruments, etc., discovered by modern science for curing diseases, they cannot remove the origin or cause of diseases." Here again, then, it is asserted that Sūrya Namaskārs, if faithfully practised according to instructions, will be found potent enough to produce this end.

(*i*) Gardner Roney in " Physical Culture " for July, 1926, says, " Bathe your body in the sun. The Sun is the greatest of all healers. It is the source of all health, says Science.

" And today, throughout the world, tuberculosis, pneumonia, eczema, colds in the head, and pulmonary disorders generally are being cured with regularity, speed and certainty by this new method called Heliotherapy. "

(*ii*) " Sunlight, " declares Dr. Hess, the foremost authority in America on the curative powers of the Sun's rays, " is the source of all foods; the stimulant, tonic and healer incomparable. Educate the public to an understanding of its importance to health and the entire race will be better, healthier and happier.

" Sun, Air and old Mother Earth, the new studies are teaching, are the *trinity* through which *mankind* may be revitalized and recreated. That all three have definite therapeutic values upon which the human organism is dependent for its *physical*, *mental* and *spiritual* well-being, science knows. "

(*iii*) Dr. Rollier, the founder of the " School in the Sun ", in Switzerland, is a pioneer of the realm of

heliotherapy – sun cure. He was one of the first to discover that sun-light was just as necessary to the growing child, and to everybody else too for that matter, as it is to the growing plant, and in exactly the same way, that is, in *direct* contact with the skin.

" Sun-bathing ", Dr. Rollier observes, " ought to play just as important a part in the school programme as gymnastic work, and the two can often be combined. Recreation and physical training should be so arranged as to have the benefit of the *early morning sun*, and the children should take them with their bodies exposed. "

— "Physical Culture" for Aug. 1926.

(*iv*) Leonard Williams, M. D., says, in his article on Vitamine in the " Encyclopaedia Britannica ", New Volumes, Twelfth Edition, " It (anti-Scorbutic factor) is present in large quantities in all uncooked fruits and vegetables, and it is interesting to note that the popular idea that the foods which have been *kissed by the Sun* have a greater value than those which have not, finds some justification in the fact that vegetables grown above ground are much richer in the *anti-scorbutic factor* than root vegetables. "

(*v*) " Thou art no lingerer in monarchs' halls,
A joy thou art, and a wealth to all !
A bearer of hope unto land and sea,
Sunbeam ! what gift hath the world like thee."
Mrs. Hemans.

(*vi*) " The milk of cows fed and kept indoors all day does not contain enough of vitamin D, which is essential to growth and health and which prevents rickets.

+

To produce this vitamin D the cow needs to get out of doors into the ultra-violet light of the Sun."

— "Scientific American" for April 1927.

(*vii*) Dr. S. H. Belfrage, M. D., in his book "What's Best To Eat?" p. 26, says — "The electrical energy which pervades the living universe is derived so far as this earth of ours is concerned, from the *Sun* in the form of light and heat. It is under the influence of this energy derived from the *Sun* that the *dead* material of the universe becomes endowed with sufficient energy to form *living* matter.

"Under the influence of the *sunlight* and by the virtue of its magical energy, the plants knit together the lifeless elements — oxygen, hydrogen, nitrogen, iron, phosphorus, etc., – into compound substances from which the higher forms of life can build their bodies.

"Thus we see that the *plant world* is a vast electrical accumulator from which the *animal world* derives its energy and that that energy — the energy that we expend every moment of our lives — is *ultimately* derived from the Sun."

(*viii*) "All energy on this earth, organic or inorganic, is directly or indirectly derived from the *SUN*. The flowing water, the driving wind, the passing clouds, the rolling thunder and the flashing lightning; the falling rain, snow, dew, frost or hail; the growth of plants, the warmth and motion of animal and human bodies; the combustion of wood, of coal – all is but *solar* energy in action."

— Charles F. Haanel,
Author of "The Master Key System,"
"The New Psychology," &c.

(*ix*) सूर्य आत्मा जगतस्तस्थुषश्च ।

The Sun is the soul of the movable and of the immovable.

—Rigveda. 1, 115, 1.

(*x*) प्राणः प्रजानामुदयत्येष सूर्यः ।

— प्रश्नोपनिषत्, १, ८.

Life of Creation—there riseth up the Sun.

— G. R. S. Mead, B. A., M. R. A. S.

(*xi*) Our god, the Sun, is beyond all defilement and beyond the reach of the most brutal iconoclasticism."

(*xii*) " Sun-worship is *not* idolatry. "

(*xiii*) " I here mention some of the diseases in which I myself and other medical men have found these rays (ultra-violet rays) of value: Skin-ulcers, baldness, eczema, psoriasis, lupus, &c. Alimentary system —ulcers of stomach, haemorrhoids. Consumption and tuberculosis. Weak circulation and some heart affections. Catarrhs. Neurasthenia. Ear and eye cases. Throat cases. Melancholia. Neuritis,&c. &c. "

—J. Stenson Hooker, M. D. (Lond.)
in "Health & Efficiency " for June, 1928.

(*xiv*) " To have good health you must get sufficient pure sunlight. For pure morning and evening sunlight builds rich red blood, tones up the entire system, clears the skin, builds resistance to disease and gives you the glowing energy and appearance of radiant youth. "

—" Physical Culture. "

(*xv*) "The Sun is the original source of *all* life. Take away those rays, exhaust the suns's energy and out will go life on the planets. When one considers for a moment what the sun has made possible, what the sun has actually brought about and perpetuates, it is little wonder that this light of all life should receive humble homage in the form of sun-worship by primitive peoples.

"Babies are strengthened in every organ, tissue function and cell by sunlight. Their resistance to disease is heightened to a tremendous degree when their bodies are exposed to the sun's health-giving rays."

—Dr. E. C. Gray, M. D.,
in "Physical Culture" for Aug. 1928.

(*xvi*) "Ultra-violet rays of the sun or ultra-violet spectral rays are the only reliable source of vitamin D. Vitamin D is absorbed by the blood when the bare skin is exposed to the sun and rays from a quartz mercury vapour generator. Also foods exposed to such rays absorb and retain vitamin D. This vitamin prevents and cures in children, rickets, deformity, bone disease, anemia, under-nourishment and other forms of mineral malnutrition. And in the case of adults, this vitamin prevents and cures auto-intoxication frequently terminating in rheumatism, neuritis, diabetes, Bright's disease, &c."

—Dr. H. C. Menkel, M. D.,
in "The Oriental Watchman & Herald of Health" for October, 1928.

(7) CHEAPNESS.

Some who take a cynical view of Sūrya Namaskārs say that this exercise is made much of on account of its cheapness. But is cheapness a merit or demerit? Will not the cheapness place the exercise within reach of all?

Yes, Sūrya Namaskārs cost nothing. But cheapness is not the sole merit they claim; it is one of the many merits which make the exercise superior to any other. (See Chapter XIV.)

This excellent exercise develops not only the muscular system but the entire nervous system as well, and makes all the important glands and other internal vital organs function normally.

" Until quite recently very little was known about the action, secretion and effects of what is known as the endocrene or ductless *gland system* upon the human body. But science has at last shown us that forces which govern life both physical and mental – the forces which promote the growth of the body and make or unmake beauty of face and symmetry of bodily form – are secreted by the *glands* of the body. "

Hence it is not the cheapness alone upon which the supreme importance of the Sūrya Namaskārs is based.

(8) MONOTONOUSNESS.

Another objection recently raised against the Sūrya Namaskārs is that the exercise is monotonous and uninteresting.

It will be admitted that it is tediousness and weari

someness that bring in or produce monotony. The Namaskār exercise, which according to our system requires from 15 to 30 minutes only, consists of a large number of different springlike, quick and buoyant movements of the body, giving tone to each and every part of it, can never be monotonous in any sense of the word.

Besides we have to put our mind in every movement while doing the several positions of the exercise, which yields a good amount of interest throughout the time that we are doing the Namaskārs.

The value of mind and will is too important to be overestimated in the performance of any bodily exercise and especially in doing the Sūrya Namaskārs.

" William Muldoon, the great old man of athletics ", says B. Macfadden in 'Physical Culture' for October, 1927, " has studied on numerous occasions that the development of great strength depends upon certain mental characteristics; that mind-power is the certain force; you must have mental determination before you can acquire physical power.

" The truth of this statement cannot be gainsaid.

" No intelligent individual will belittle the importance of mental force. It might be termed the spark that creates the fiery ardor of the genius. It is the source of our enthusiasm and ambition. It gives us vivid flaming determination to go after the great prizes of life.

" Mind and body must be developed, strengthened

to the very limit in order to bring out one's innate abilities.

" It is the duty of every one to develop body and mind to the extreme limit; and thereafter *throughout life* these same physical and mental powers should be maintained.

" By adhering to such a policy *the spirit of youth can be maintained nearly to the end of life.* And when the flaming enthusiasm of early youth with their appreciation of what Life offers us, can be retained beyond middle age, we are indeed possessed of wealth that cannot be measured.

" But to acquire and retain such gifts requires mind power, with the determination essential to compel one to adhere to the rules of life. "

The observation of F. C. Haddock, M. C., Ph. D., will further elucidate our point. Says he in his great book, "Power of Will" :—

" State of Will depends upon the condition of Physical health.

" Physical health is a goal of science and is reached through the resolute and persistent Will.

" Every rule of health deliberately followed becomes a developer of Will-Power. "

Thus readers will see that in the exercise of Namaskārs, using the mind in every movement and thinking of health, efficiency and longevity are essential to give proper results. Mind is, therefore, included in the eight

parts into which Sūrya Namaskārs are divided. (See Chapter IV.) Mind is really the Creative Force back of great strength, health and happiness.

In addition to developing mental concentration, the Sūrya Namaskār exercise has so many phases of vital interest that it need never become monotonous to the intelligent student. It builds up your physique, normalizes your bodily functions, distributes and conserves your energy, increases your disease-resisting power and in short gives you the glowing spirit of youth. If you wish to attain these worthy ends, you should make a hobby of Sūrya Namaskārs — the best course of physical culture.

To be free from worry or tiredness and to keep healthy and fit for years together without an ailment - without even ordinary cold or cough - is a supreme happiness. And when this is attained by doing Sūrya Namaskārs regularly and systematically, can they be called monotonous and uninteresting ?

(9) RELIGIOUS TINT.

Some atheists and non - Hindus shun the exercise of Namaskārs on the ground that it is a religious rite.

It is true that the Namaskār exercise has an appearance but an appearance only of a religious rite. But it is not essentially a religious rite. Bathing and deep breathing are regarded by the Hindus as religious duties, as they give cleanliness, health and energy. Is bathing or deep breathing then ever taken objection to by atheists and non - Hindus ? We must, with discre-

tion, make a clear distinction between things essentially religious and those, which being good in themselves, are for that reason included in daily religious duties, and are, therefore, only apparently religious. Rules of health have nothing to do with dogma or blind religious faith.

Those who still object to saying the Bīja mantras and Vedic hymns in doing Sūrya Namaskārs, might substitute for Bīja Mantras the vowel-sounds recommended by B. M. Lesser Lasario in chapter IX, or any other similar combinations of sound, or drop them without detracting much from the exercise. Omission of these mantras and hymns from the Namaskārs will, we hope, smooth the non-Hindus' path to health, efficiencey and longevity.

There can be no two opinions that in these days of keen struggle for existence, an eupeptic stomach is the best equipment for a young person to start life with and it can only be maintained if a course such as that of Sūrya Namaskārs is religiously or rigoronsly adhered to.

In this way the Sūrya Namaskārs make for Health, Efficiency and Longevity.

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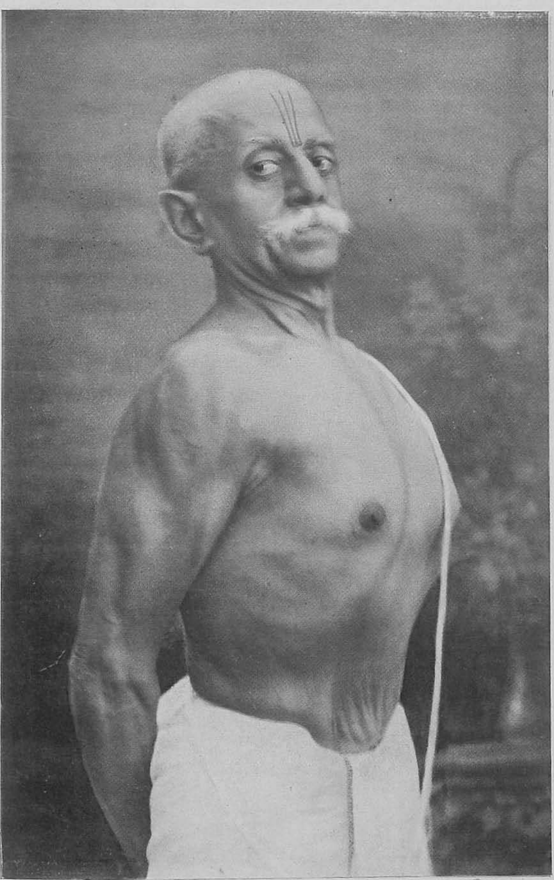
CHAPTER XI.

PERSONAL EXPERIENCES.

OUR OWN EXPERIENCE.

When young we studied wrestling under Imam Uddin, a well-known professional wrestler from the Punjab. We also practised "Jor", "Baithaks" and Indian clubs, but in accordance with the accepted doctrines of the old school of wrestlers, we used to partake of unnecessary fatty foods and thus put on an excessive amount of fat. In 1897 we read about Sandow, the famous physical culturist and purchased all his apparatus and books, and for full ten years practised regularly and continuously according to his instructions, with the result that the chest measurement remained the same, while that of the waist and abdomen showed a marked reduction. Since 1908, being influenced by the example and advice of our esteemed friend Shrimant Sir Gangadharrao (alias) Balasaheb, Chief of Miraj (Senior), we have been continuously, regularly and systematically doing Sūrya Namaskārs every day with Bīja Mantras, and Vedic hymns and the result has been a most remarkable lightness of body, buoyancy of mind and a general feeling of youthfulness which must be experienced to be understood. But the highest benefit of all is that during the past 20 years, we have been absolutely free, not only from fevers and other ailments, but never even suffered from a cold or cough which is regarded as inevitable even by some professional medical men. And the most



Balasaheb Pant Pratinidhi, Chief of Aundh, Age 61.

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surprising proof of the stamina and the resisting power of the body lies in the fact that though we submitted to plague inoculation no less than four times we had no fever and experienced no sort of muscular pain sufficient to prevent us from doing our daily Namaskārs. We submit that this 20 years' experience and study has qualified us to speak with a measure of authority that of all the systems of physical exercise, the Sūrya Namaskārs stand first and foremost in promoting vigorous bodily and mental health and in endowing one with that equanimity of mind which is not ruffled even under extreme conditions.

"It is to long walks, felling and sawing trees, chopping wood, riding and to other hard physical labour and exercise that I ascribe the fact that in spite of the terrific excitement of the war and the heavy responsibilities resting upon me, I was able to maintain my physical and mental equilibrium."

– Ex-Kaiser, in "Physical Culture" for Feb., 1927.

Now that the mystery of the Pranava, Ōm, and the Bīja Mantras – hrām, hrīm, etc., is clearly solved, we can most positively affirm that Sūrya Namaskārs stand far superior to any other system of exercise.

The statement that during the past twenty years we have had absolutely no ailment of any kind whatever, would naturally make the reader desirous to know what we eat, how long we work, how, in short, we spend the 24 hours of the day.

HERE IS OUR DAILY HEALTH ROUTINE.

3·30 to 4 A. M.— Getting up, washing the mouth and teeth and bathing.

4 to 5 A. M. — Sūrya Namaskārs.

5 to 5-30 A. M.— Morning worship.

5-30 to 6-15 A. M.– A brisk walk up and down the hill, 600 feet high.

6-15 to 7 A. M.— Breakfast and teaching English to Ranisaheb and children.

7 to 9-30 A. M.— Going over the daily post, giving orders about State affairs and reading newspapers, etc.

9-30 to 10-30 A. M.– Painting.

10-30 to 11-30 A. M.– Dinner.

11-30 to 12-30 P. M.– Reading.

12-30 to 1-30 P. M. – Siesta or midday rest.

1-30 to 3 P. M. — Literary work: writing, composition or other studies.

3 to 4-30 P. M.— Official work:– Examining the daily routine work of all the Secretaries, disposing of petitions, hearing appeals and other High Court work, etc.

4-30 to 5 P. M.— Superintending sculptural, photographic and other art works.

5 to 6 P. M. — Kirtan Class-work and music.

6 to 6-30 P. M.— Evening worship.

6-30 to 7-30 P. M.– Evening meal.

7-30 to 8-30 P. M.– Reading and teaching Marathi and Sanskrit to Ranisaheb and children.

8-30 P. M. to 3-30 A. M. – Sleep, which comes on with all soundness within five minutes after resting the head upon the pillow. We rarely dream.

If vigorous health, buoyant energy, freedom from disease and useful longevity are to be attained, the daily physical exercise should be coupled with simple, frugal vital diet.

BREAKFAST.

Our breakfast consists of about two cups of cow's milk, warm and fresh from the udder (without being boiled or sterilized or mixed with sugar) and a little cream with honey.

DINNER·

About 20 tolas (8 oz.) of boiled whole brown rice (rice with hull only removed and not pearled or polished); one or a half whole wheat bread, weighing about 10 tolas (4 oz.) and made according to Indian method; a little pulse in the form of *varan* (* वरण), *amti* († अमटी), *usal* (‡ उसळ), &c.; one or two green (uncooked) and cooked vegetables without spices; a little of milk and milk-products, such as curds, butter-milk, ghee, *kadhi*, (§ कढी), &c.; and fruits, if any, constitute our dinner.

* A highly tasteful dish of pulse.

† A dish consisting of gram-flour boiled up with tamarind, some split pulse cocoanut, &c.

‡ A dish consisting of pulse boiled, and fried with greens, etc.

§ A dish consisting of a little gram-flour boiled in butter-milk, spiced with turmeric, coriander, etc.

SUPPER.

Our supper is made up of the same articles as those at dinner, but much less in quantity and variety.

FRUITS.

Whenever available, a little quantity of fruits and nuts, such as mangoes, guavas, pomegranates, grapes, pine-apples, figs, oranges, almonds, cocoanut, or pea-nuts, etc., is taken with meals.

When fruits and nuts are added to meals, the quantity of rice, bread and pulse is proportionately lessened.

FRIED ARTICLES.

All fried articles, such as, fritters (¶ भजीं), *chivda* (‖ चिवडा), *jilbee* ($ जिलबी), etc. and even *phodni* (+ फोडणी) are studiously excluded from our dietary.

WATER DRINKING.

We drink fresh, cool, spring water scented with some fragrant flower, as rose, jasmine, etc. We never drink water at meals but always an hour after meals and whenever we feel thirsty between meals.

¶ A small quantity of batter of gram-flour, mixed with thin slices of brinjal, onion, etc., fried in boiling ghee or oil; a fritter.

‖ A medley of various parched grains, ground-nuts, cocoanuts, spiced and fried together.

$ A kind of rich sweetmeat made from soaked white flour mixed with a dash of saffron, fried in ghee and soaked in boiled liquid sugar.

\+ Oil or ghee heated with a little quantity of assafœtida, mustard seeds, etc., as a cooking sauce for vegetables, etc.

We eat nothing between meals, not even fruits, which, if any, are taken with meals.

STIMULANTS.

All stimulants and narcotics, such as tea, coffee, cocoa, tobacco, etc., are absolutely taboo. We don't indulge even in chewing betel leaves (*pan*) or areca - nuts (*supari*).

" Here is a truth, " to cite Bernarr Macfadden, " that is worth careful consideration: The less you eat to keep your health and strength, the longer these valuable possessions will be retained. If the meal were divided in half it would probably more accurately represent the needs of the average individual. "

The following Marathi proverb brings out Bernarr Macfadden's idea very well:

" फार खाल तर थोडें खाल, थोडें खाल तर फार खाल. "

" Eat little and live to eat much. "

In addition to regular daily exercise, like the Namaskārs, and a wholesome frugal diet of vital foods, well masticated and eaten only at the dictates of normal appetite, frequent fasting — complete or partial — is needed.

FASTING.

On every Monday, Tuesday, Sankashti Chaturthi (fourth day of every dark fortnight) and every principal fasting day of the year we observe a partial fast. The first nine days of the Navarātra in the month of Ashvin we live on fruits and cow's fresh warm milk only without

sâlt or sugar. For a month or two of every Chāturmās (the four months of the wet season) our diet consists of Havishya food, i. e. food confined to special articles only.

" If you want to keep well for an indefinite period," observes Bernarr Macfadden, " you have to make up your mind that a fast for a day now and then is absolutely essential. "

If you have not tried and tested the exercise of Sūrya Namaskārs with the diet and fasting as described here and elsewhere, we strongly urge that you try them.

PHYSICAL CULTURE CREED.

We maintain, with Bernarr Macfadden —

(a) " That our bodies are our most glorious possession. "

(b) " That health-wealth is our greatest asset."

(c) " That sickness is the penalty of violated health-laws. "

(d) " That every man can be a vigorous and vital specimen of masculinity, and that every woman can be a splendidly strong, well-poised specimen of femininity, *if the laws of life are rigidly observed.*"

EVOLUTION OF THE PRESENT SYSTEM OF SURYA NAMASKARS.

We are often asked the question, " Is the method of Sūrya Namaskārs, you are now advocating, being followed by you from the beginning? "

Here is a brief reply, showing how the present

system gradually evolved from the old method:—

It was in 1908 that we first commenced to do Sūrya Namaskārs in the old style, according to which it was not necessary to straighten the knees while bending over, nor to bring the foot forward in a line with the palms, it being enough to place the foot several inches behind the line, and instead of standing erect to do each Namaskār, several Namaskārs were done in the stooping position. In this way as many as five Namaskārs could be done in one breath. While now *three* complete breaths have to be done in *one* single Namaskār, and the Pranava, the Bīja Mantras and the Vedic hymn were all recited lowly and rapidly in the bending posture. In our boyhood we were taught to do Sūrya Namaskārs in this way. There are still many persons who follow this old style. A few of them at best stand for each Namaskār, but never keep the knees straight when bending over.

On doing this exercise about a year after 1908, we one day tried to bring the toes of one leg forward in a line with the palms, and found that it gave a little greater strain to the abdomen and waist. This was the first item of improvement made in the old style.

When, on another occasion, we tried to straighten the knees when bending over to place the palms on the ground, we experienced a still greater stretching sensation in the calves, thighs, waist, abdomen, and throughout the back. This material improvement dates from this time.

Following the custom of the old school of wrestling

and athletics, we, when young, partook freely of fatty and proteinaceous substances, such as cream, butter, ghee, nuts, etc., when in training and even when not in training, and consequently put on an excess of fat all over the body and especially round the abdomen. And as it was necessary to reduce the girth of the abdomen all such movements in Namaskārs as gave a vigorous stretch and compression to the abdomen were gradually introduced in the method.

The changes thus made in the mode of doing Namaskārs vigorously strained and acted upon the stomach and abdomen muscles, and gradually lessened within about six months our constipation, the greatest menace of the civilized man. Though sometimes the bowels fail to function early in the morning, they do open freely an hour or so after the Namaskārs.

When required to stand for a longer time in order to recite the Pranava, the Bīja Mantras and the whole Vedic hymn in the last three Namaskārs, we tried to stand erect, with chest inflated and thrown forward and felt an appreciable strain in the abdomen and waist regions. Since then we assumed this attitude in *every* Namaskār.

When taking the right foot forward a studied pressure on the right side of the belly and a similar pressure on the left side in taking the left foot forward, were found to stimulate the liver and spleen respectively. This improvement was, therefore, made in the old method.

With the introduction of these improvements over

the old style, as we had to mark if the different parts of the body, especially the stomach and abdomen received adequate pressure and stimulation, we naturally stopped the old way of doing four or five Namaskārs in one breath. And the simultaneous action of touching the ground with the chest and forehead necessitated the pulling up of the belly and this pulling up was greatly facilitated by a complete exhalation. Hence in every Namaskār complete exhalation was made when in this position the belly was drawn in.

When in the standing posture, the chest had to be widened and thrown forward, a full and deep inhalation proved a great help. Thus we began to take one full breath – i. e., one full inhalation (पूरक), one holding of the breath (कुंभक) and one complete exhalation (रेचक) – in doing one Namaskār. And such full breath tended considerably to widen the chest and to reduce the fat about the abdomen.

Whenever then in different positions in performing one Namaskār the belly had to be drawn in, a complete exhalation was found very useful and effective for that particular movement. In like manner, whenever in doing one Namaskār the chest had to be widened, a full deep inhalation helped the movement materially.

In this way, *three* full breaths came to be included in performing *one* Namaskār only.

A careful perusal of the article by B. M. Lesser Lasario in the " Physical Culture " Magazine for April, 1924, induced us to say the Pranava and the Bīja Mantras slowly, loudly and clearly, which has proved of vital importance.

Putting all these observations and experiences to practical use, we gradually evolved quite a new system (out of the old one) of doing Sūrya Namaskārs as detailed in this new edition.

We have gone into all this at some length, because we feel that we have played our small part in helping our fellow men and in helping to change matters.

Saubh. Ranisaheb of Aundh.
Age 29.
[To face Page 103.]

EXPERIENCES OF OTHERS.

OUR RANISAHEB'S EXPERIENCE.

Girls and women doing Sūrya Namaskārs according to our method are being tremendously benefited in bodily and mental health.

Some of the benefits derived by the Ranisaheb from Sūrya Namaskārs are:—

(1) STRENGTH OF THE SPINE AND BACK.

Before she took to this exercise about four years ago, she felt pain in the upper part of the spine, whenever she studied or worked for an hour or so in a sitting position. Now though she has been studying or working harder and longer in the same position, she feels no pain in that part or anywhere else.

(2) NORMAL ALIMENTARY CANAL.

She suffered now and then from stomach troubles, constipation, etc. They have all gone now.

(3) NORMAL MENSES.

A number of menstrual complaints have disappeared since she began this exercise: Hæmorrhage continued as long as eight days attended with severe pain. Now it is normal in quantity and duration and without pain.

(4) Pain about her waist afflicted her now and then, but it has all ceased now.

(5) Weakness subsequent to child-birth disappears more rapidly than before.

(6) She looks younger for her age.

Mrs. SAUBHAGYAVATI SITABAI KIRLOSKAR'S EXPERIENCE.

She commenced doing Sūrya Namaskārs systematically with Bīja Mantras and Vedic hymns on the 16th of July 1925.

The following are some of the material benefits attained within six months from commencement:—

(1) All pain in the back and waist disappeared.

(2) Almost all the menstrual complaints, she suffered from during the past 35 years, gradually vanished, and all tendency to prolapsus or falling of the womb quite disappeared. This shows that Sūrya Namaskārs when regularly and systematically done, produce beneficial effects upon the uterus or womb.

(3) There were no more rheumatic complaints.

(4) Most of the superfluous fat melted rendering her limbs firm, strong and pliant.

(5) Muscles in her arms, legs and bust became firmer, stronger and more prominent.

(6) Chest measurement increased by two inches, while that of the abdomen decreased by two inches.

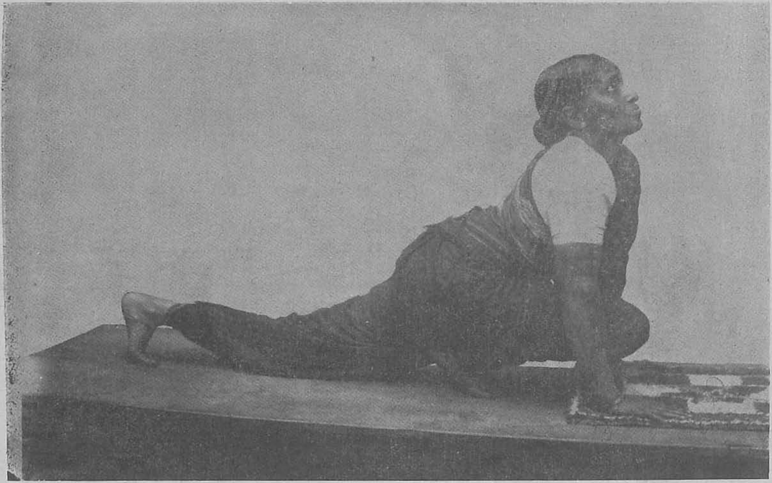
(7) Improvement in the quality of the blood: Complexion became appreciably ruddier; nails showed a redder tint.

(8) Falling off of hair stopped.

(9) Perspiration lost its unpleasant odour.

(10) Digestive organs began to function better.

(11) Not even cold or cough ever since.



Mrs. Saubh. Sitabai Kirloskar, mother of ten children
Age 52.

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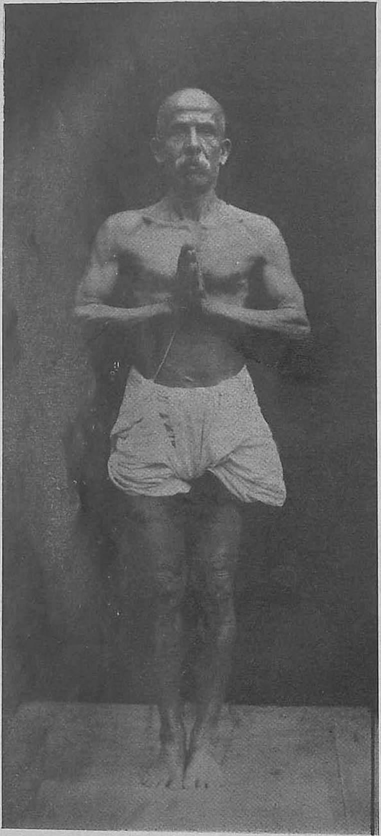


Mr. R. K. Kirloskar.
Age 70.
[To face Page 105.]

Mr. R. K. KIRLOSKAR'S EXPERIENCE.

It is seven years he has been doing the Sūrya Namaskārs with Bīja Mantras and Vedic hymns every morning regularly and systematically. He does 100 Namaskārs daily and it takes him about 30 minutes to perform them.

He also walks briskly up and down a hill, about 600 feet high, every day, which takes him about 40 minutes.

Before he commenced taking this exercise, he took two meals, but a few months later, he did away with his evening meal.

Among the benefits that accrued to him from the Sūrya Namaskārs may be mentioned the following—

(1) Absolute freedom from any physical complaint or ailment. He has had during this period not even cold, which before came on him at least once a year.

(2) He has not during the past five years suffered even once from worms, for which he had to take santonine once or twice every year.

(3) The pain at the base of the neck and about the waist, which troubled him now and then has completely disappeared, thus showing that this exercise strengthens the spine, back and waist.

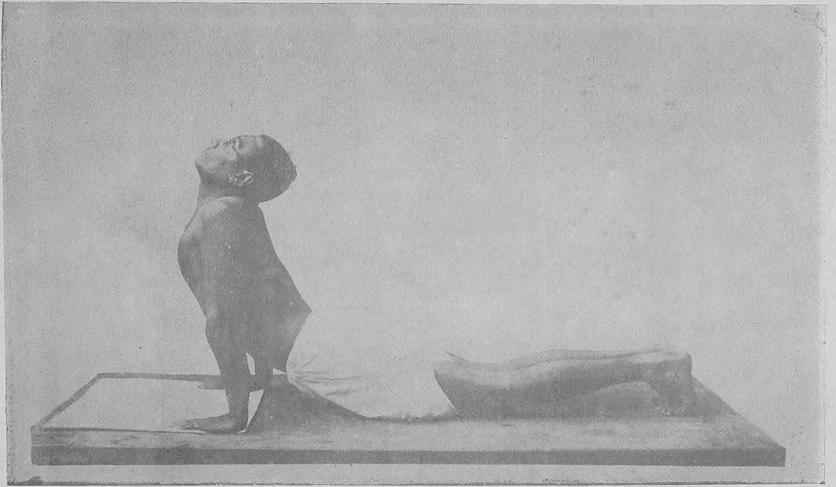
(4) Digestive organs are functioning more satisfactorily.

(5) His energy, physical and mental is like that of a young man of forty-five.

Mr. PANDHARINATH A. INAMDAR'S EXPERIENCE.

He has been taking the "Sūrya Namaskārs" exercise since his 14th year.

He is also a keen sportsman and good swimmer. But all his physical development is due to Sūrya Namaskārs. His weight is 150 lbs, which is constant for the past nine years, and his height is 5 feet and 10 inches, which is worth consideration, in view of the fact that his father was and his mother is very short.



Mr. Pandharinath A. Inamdar M. A., B. Sc.
Age 36.
[To face Page 106.]

THE EXPERIENCE OF MR, SHANKAR HARI JAVDEKAR, HEAD MASTER, MARATHI SCHOOL, INDAPUR, DISTRICT POONA.

In the month of May, 1925, stomach-ache began to afflict me daily at about 2 P. M. The pain gradually increased to such a pitch that despite the varied treatment of doctors and physicians at Indapur, I felt as though several scorpions stung me in the stomach. Then I went to Poona, where I placed myself under the treatment of a well-known medical practitioner for ten days. There was slight relief, but the pain was there.

I returned home to Indapur and continued to take medicine and regimen as prescribed by the Poona doctor, but all in vain. And the thought that the disease might permanently sap my energy and constitution, made me disheartened, when, fortunately the Marathi book on Sūrya Namaskārs by the chief of Aundh came to hand. A careful perusal of the valuable booklet induced me to try the Namaskār exercise for relief. I did try and was able to do fifty Namaskārs within a week, as I had already been practising gymnastics, &c. The wonderful alleviation of my disease brought about by this divine exercise within so short a time, encouraged me to continue it. I gradually increased the number of Namaskārs to 200, when all pain vanished and I was restored to health. I was very happy to find that Sūrya Namaskārs achieved what all medical treatments and other exercises failed to do. I have since then been a staunch adherent of Sūrya Namaskārs.

Having been thus convinced of the therapeutic and prophylactic value of the Namaskār exercise, I wished

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that all my assistant teachers and pupils should profit themselves by practising this wonderfully efficient exercise.

I accordingly convened a public meeting, consisting of teachers, students and a large number of townsfolk and delivered a lecture on the necessity and importance of Sūrya Namaskārs for keeping one always fit and healthy. The lecture proved so effective that all the teachers and students agreed with one voice to do the Namaskārs in the school every day during school time. The public too were so favourably impressed that they immediately subscribed towards a fund necessary to erect a spacious and convenient hall for doing this exercise.

The hall was soon built to the delight of us all. As many as 150 students are now taking this Namaskār exercise simultaneously in this hall under my direction.

Another idea soon struck me; I wished to find by actual comparison if Jors and Baithaks also if daily and methodically practised would produce the same results. I, therefore, made two batches, each consisting of 25 boys of almost the same age, strength, stature and circumstances. Their individual measurements and weights were recorded in a register specially kept for the purpose, before each batch commenced its own form of exercise.

The same period of time was allotted to both the parties to do their respective exercises. Twelve months' regular practice conducted under my personal supervision proved the decided superiority of Sūrya Namaskārs over Jors and Baithaks.

Indapur, 30th June, 1928.

S. D. Javadekar.

THE EXPERIENCE OF Mr. G. K. GOKHALE, M. A., SUPERINTENDENT, NEW ENGLISH SCHOOL, HUBLI, DISTRICT DHARWAR.

Having decided to give a trial to Sūrya Namaskārs I came to Aundh from Hubli and put myself in the hands of an expert in Sūrya Namaskārs, who is also a great enthusiast in matters of physical culture, for being trained in the several movements, that make up the Namaskār exercise. I took my first lesson on the 18th October, 1928, and it required 4 or 5 days for me to learn the movements. I was doing only half a dozen Namaskārs daily as my body was stiff and the various muscles were put to a considerable strain in doing even such a small number of Namaskārs. But gradually they appeared easier to do and in a few days I could complete 12 Namaskārs almost according to the rules laid down. I could increase about 6 Namaskārs every half-week or so. To my great surprise, on the 17th day of my training, I could do 50 Namaskārs without being particularly fatigued or feeling out of breath. This I consider to be a great merit of the Pranava, Bīja Mantras and Vedic hymns (to be recited while doing the Namaskārs) which are so graduated that the period of rest (due to having to recite the Mantras, etc.,) goes on lengthening as the Namaskārs go on increasing in number. If the length of the mantras for the first 12 Namaskārs be supposed to be 1 unit, the length of the Mantras for the next 6 Namaskārs is 2 units; for the next 3 Namaskārs, it is 4 units and for the next 3, it is 12 units; so that you feel quite fresh by the time you have finished the 1st cycle of 24 or 25 Namaskārs.

I can assure all those who may be thinking of taking this Namaskār exercise that it is easy to learn and quite safe as it does not put any undue strain or do any injury to any muscles or organs of the body. To do the movements exactly according to the rules prescribed would involve such a strain, but the beginner is not expected to aim so high; it is better for him to attain perfection in course of time as he makes progress. In fact, some of the positions are so hard that they can only be done perfectly after months of practice.

Even with the little practice I have had I am beginning to feel the beneficial effects of the exercise. The extra fat on my abdomen is growing thinner and my chest seems to be expanding. The constipative tendency, which had so far appeared natural and inseparable from me, seems within control and, on the whole, I am feeling more buoyant and energetic.

This exercise seems to have the most invigorating effects on the abdominal muscles and on the spine, which it stretches and compresses to a sufficient degree. The strength and elasticity of the spine is a very important factor in the general well-being of the whole body and the maintenance of perfect health. The Namaskār exercise satisfactorily fulfils the principle enunciated in the following statement of Benarr Macfadden :—

" If you feel that you do not have time to exercise any other part of the body, at least exercise the spine. It will yield you the greatest dividend for the time invested. I believe it is always well to exercise other parts of the body also in order to have a balanced development, but some people cannot be convinced that they have

time to exercise the entire body and for these I say, - ' Exercise the spine ' ! "

— " Strengthening the Spine " pp. 116, 117.

From this it follows that the Namaskār exercise (to be taken until one perspires freely) is the indispensable *minimum* for every person of *either sex*, young or old. It is a special boon to those who have passed or are about to pass the 40th mile - stone on life's pathway and in whom deterioration of health in various forms may be making its appearance.

Aundh,
8th November, 1928.

G. K. Gokhale,
Superintendent,
New English School, Hubli.

CHAPTER XII.

A STATE AT EXERCISE.

We have been fortunate enough to convince our people of the usefulness of physical education in general and of the Sūrya Namaskārs in particular and they have taken to them with such enthusiasm as to demand a State regulation to make the Sūrya Namaskārs compulsory in all the schools of the Aundh State.

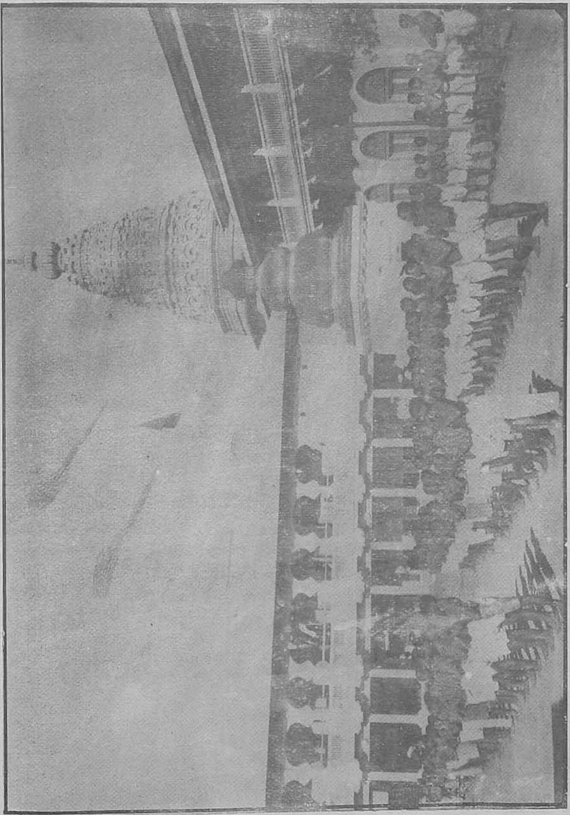
"Like Bernard Shaw" the Kaiser remarked "I don't believe in over-muscled men. I believe in the harmonious development of the entire body. It is much more important to see 10,000 men, women and children to go through a series of carefully planned exercises than to watch some professional athlete beat the world's record in some useless attainment by one-tenth of a second."

— "Physical Culture" for February, 1927

It is our dearest wish that the students of our schools should carry the benefits of the system not only to their families, but extend them to all with whom they come in contact.

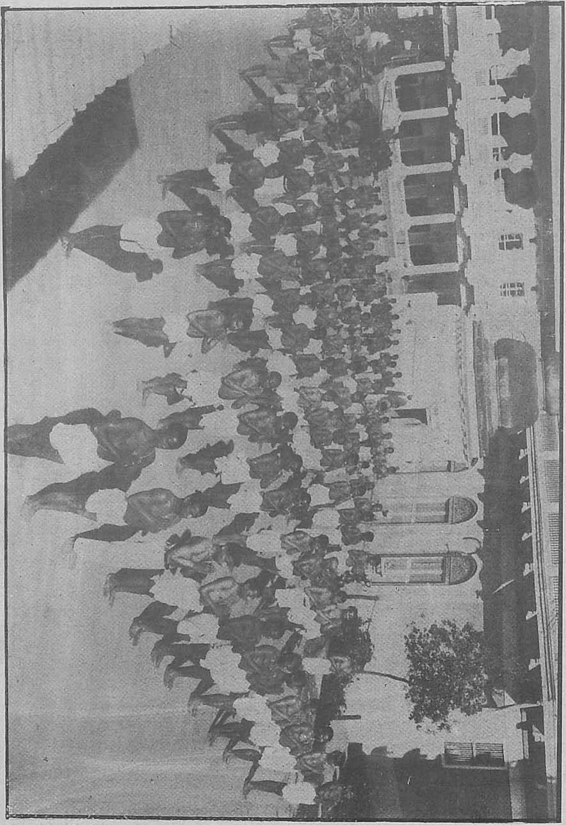
Would it be too much to expect our brother-rulers and the educational authorities in British India to adopt our system and to extend the blessings of Health, Efficiency and Longevity to the present and coming generations?

Fig. 18.



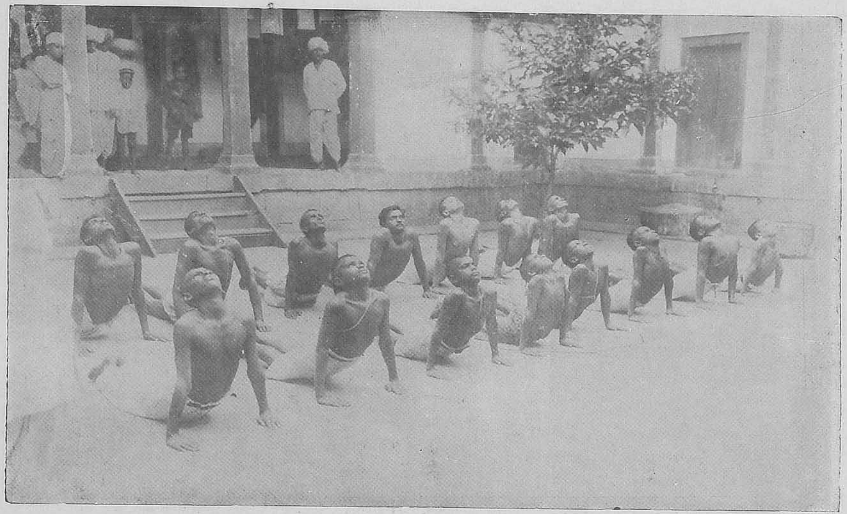
Aundh High School students doing Namaskar Exercise.

Fig. 19.



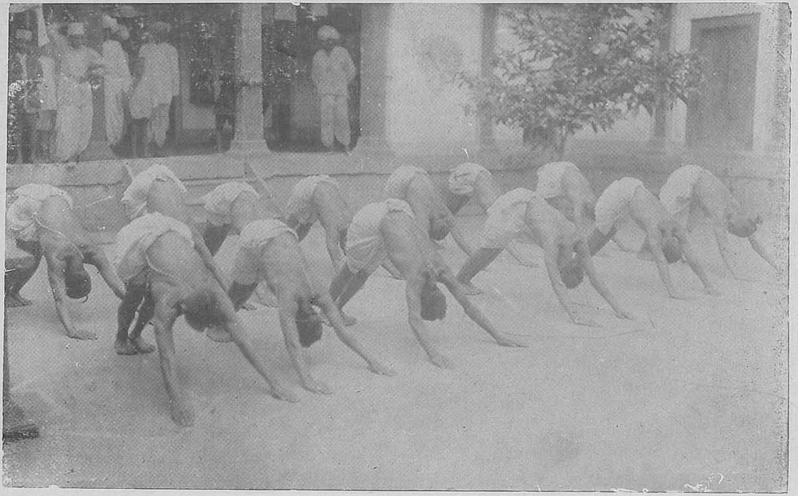
Aundh High School students doing Namaskar Exercise.

Fig. 20.



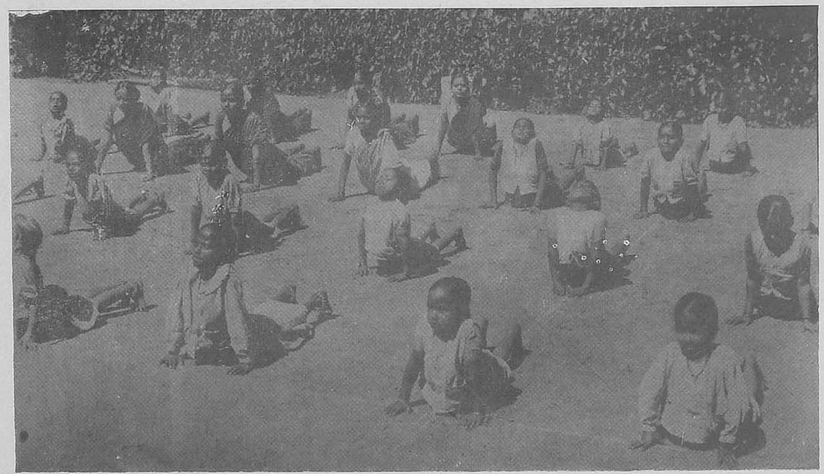
Aundh High School students doing Namaskar Exercise.

Fig. 21.



Aundh High School students doing Namaskar Exercise.

Fig. 22.



Aundh School Girls doing Namaskar Exercise.

Should our dream be realized, there will be seen within the short space of five or ten years a vast improvement in health, strength and spirit of our school and college going population. We will not, however, be fully satisfied if the health of our boys only is improved, because society requires that the health of our girls – the mothers of the race–should be improved even before that of the boys. The girls' schools of thirty years ago, woefully neglected all provision for the physical education of the pupils. Latterly these glaring evils of the system of education imparted to our girls at school and college have been to some extent mitigated. These benefits, inadequate as they are, reach the limited circle of school and college going girls only.

The large mass of girls (and of boys too for that matter) who do not attend any school or college is left practically without any means of proper physical exercise; and with the break-up of the old joint family system, the number of girls in the family is decreasing every day and group exercises are becoming impossible. And the need for a system of physical exercise, which a girl can take entirely by herself is becoming more and more keenly felt. To all such girls our Sūrya Namaskārs offer the most admirable system of physical exercise. And as in the case of men, so in the case of women, this superb exercise, carried out according to the needs and capacities of the individual, will bring permanent happiness not only to the individual, but to all the succeeding generations.

" In the future more attention will be paid to the physical development of women. The experience in the last war has shown us that upon women falls no small share of the physical burden of war. Women as well as

men should be equipped for their task in *peace* as well as in war, more adequately. While military service may not be required of women in the future, there is no doubt that *compulsory* physical instruction and body building will be extended through the world to *both* sexes."

— Ex Kaiser in "Physical Culture" for February, 1927.

One of the chief merits of Sūrya Namaskārs is that it is best adapted to group exercise or exercise *en masse*. Under proper supervision, hundreds of students — boys and girls — can be made to take this exercise simultaneously, thus affording the double advantage of efficiency and economy of time. The students may be grouped according to age, height or capacity.

We are convinced from our experience of group exercises performed in all the Primary and Middle Schools as well as in the High School of the Aundh State for the past five years, that of all the group exercises to be made compulsory the Sūrya Namaskārs is the only one that can be taken most conveniently and most efficiently. (See Figures 18, 19, 20, 21, 22.)

We are never opposed to out-door games, sports, wrestling, gymnastics, athletics, swimming, riding, etc. The main point we want to emphasize is that along with a variety of sports and games according to taste, means, space and other circumstances, there must be a daily *compulsory* exercise like Sūrya Namaskārs, which can be done singly or *en masse* all the year round in order to lay a real and lasting *foundation* of normal health and strength. For this exercise puts one in condition to

take part in any sport or athletics requiring strength and endurance.

Systematic daily performance of Sūrya Namaskārs will also further the growth and harmonious development of the body of girls and boys. This exercise moreover forms the basis for all other bodily activities, because it is found to give in a marked degree the power of control over the *body* and *mind* and the capacity to use the strength to the best advantage in "games and sports, especially those which require prolonged exertion without injurious results. It minimizes the risk of over-strain, especially of the heart."

Normal all-round health, thus acquired and retained through Sūrya Namaskārs done daily, will enable one to render a better account of oneself not only in any sport or game but in every-day life as well.

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CHAPTER XIII.

DIET, HABITS AND COOKING.

DIET.

We do not wish to dogmatize on matters of diet. A few broad suggestions are all that can be given.

Before attempting to give even a general description of what our diet should be, we should like to place before the reader the opinions of some of the present day expert and experienced dieticians and medical men of Europe and America on the subject of food and nutrition. Because "all persons receive inspiration from experiences of those whose judgment and success entitle them to the highest respect."

I.

WHAT'S BEST TO EAT ?

In spite of the advance of medical science the incidence of disease remains today appallingly great. In his recent report for 1925, the Minister of Health said that in England alone 25 million weeks' work had been lost during the year owing to ill-health and the percentage of deaths from cancer is the highest so far recorded. It is no wonder, therefore, that the modernists of the medical profession are laying considerably more emphasis on the relation between diet and disease than formerly.

Dr. Belfrage, Chairman of the New Health Society's Food Committee, points out in his book entitl-

ed " What's Best To Eat ? " how the discoveries made during the last sixteen years in the matter of food values have upset the older theories. It used to be thought, for example, that provided that sufficient heat — and, therefore, energy-producing foods were consumed all was well, and food was, therefore, measured according to its value in calories or heat units. Now it has been found that the *quality* of the food is of vastly more importance than the quantity, and its quality to the modern dietician is deemed good or bad according as it has or has not the necessary *vitamins*. The actual chemical composition of vitamins is still a matter for research, but what is now definitely known is that life and health cannot exist without them. This has been abundantly proved by experiments on animals and by experiences of man.

Vitamins have been classified as Vitamin A, Vitamin B, Vitamin C, with a possible Vitamin D,* each of which has its part to play in the preservation of health.

Vitamin A is found in milk, butter, cream and the yolk of eggs, so that ordinarily if we have sufficient of these, we may get our daily supply of vitamin A in a very pleasant fashion. Margarine does not contain any and hence it is not a substitute for butter, especially for children. The ordinary joint or steak does not contain vitamin A. It is found in liver and kidneys. The vitamin A is sometimes called " the growth vitamin, " since it

* Vitamin D has since been discovered. It is necessary for the growth of children and for the preservation of general health.

is known to control the growth in young animals. Insufficiency of vitamin A is a frequent cause of rickets and under-development in children. Failure to supply a sufficiency of vitamin A invariably leads to " deficiency disease." The value of that nauseating beverage, cod-liver oil, lies in its being so richly endowed with vitamin A.

Vitamin B is found mostly in the germ and *outer* covering of wheat, rice, barley, etc. Unfortunately modern milling processes remove the germ and outer coverings and with them remove the precious vitamin B. Green vegetables, tomatoes, carrots, onions, etc., contain vitamin B.

Vitamin C would seem to be the aristocrat of the vitamin family, for he takes up his abode almost entirely in leafy vegetables and juicy fruits, as lettuce, cabbage, water-cress, tomatoes, onions, oranges, grape-fruits, lemons, etc. The vegetables must be in the raw state, *not cooked.*

Dr. Belfrage calls some instances to show how essential vitamin B is in our food.

When, in the last world-war, the people of Denmark could get no meat, they had to maintain themselves on whole wheat, whole rice, and whole rye. They had of course milk, butter, potatoes and green vegetables. But the wonder was that this compulsory diet reduced their death rate by 34 per cent.

During the campaign in Mesopotamia, in the recent war, the disease called beri-beri occurred in the British troops to a serious extent. The men were being fed

on white flour, tinned meats and other preserved foods; they could get no milk, eggs, fresh vegetables or fruit. Fortunately, the supply of white flour gave out and the men had to be supplied with the local native flour made from stone-ground grain, i. e., flour which contained all the germ and branny coverings of the grain, which contain plenty of vitamin B. The disease ceased to occur and those who were ill, recovered. No more striking example of the value of whole meal flour could well be given.

Experiments on monkeys and other animals have proved that when food devoid of vitamin B was given them, they dwindled in health and strength, but when they were fed the same food with vitamin B, they recovered and throve.

Like many doctors, the author of "What's Best To Eat?" is convinced that many of us eat too much, especially in the way of meat and accordingly he concludes his book with this grim warning —

"Leave gormandizing - know the grave doth gape
For thee thrice wider than for other men."

— "The Times of India," Bombay,
6th November, 1926.

II

VITAMINES.

The term "Vitamine" is now employed to designate certain substances contained in milk, fruits, vegetables and other articles of food. The exact nature of these substances is not known, but they have been shown to

be necessary to the normal development of young animals and children as well as to the maintenance of health and well-being in adults. They are very labile substances which existing abundantly in raw foods, especially in *uncooked* fruits and vegetables, become seriously attenuated or altogether destroyed by cooking, desiccation, decortication and other refining processes.

There are probably a great many vitamines in natural foods — live or quick foods as they are called — but three only have till now (1922) been isolated.

These are (1) the antiscorbutic factor; (2) the water soluble B; (3) the fat soluble A.

[1] THE ANTI-SCORBUTIC FACTOR.

This factor is the most fragile of the three which have so far been isolated. It is present in large quantities in all *uncooked* fruits and vegetables, and it is interesting to note that the popular idea that the foods which have been kissed by the sun have a greater value than those which have not, finds some justification in the fact that vegetables grown above ground are much richer in the anti-scorbutic factor than root vegetables. This factor is well represented in fresh milk, but boiling, pasteurization or evaporation completely destroys it. The activity of this factor is much increased by germination, thus beans, peas, or grains of wheat or barley in the ordinary dry quiescent state, contain no anti-scorbutic factor, but if they be placed in water and allowed to germinate, they immediately acquire this vitamine in large quantities. There is a practical application of this interesting fact which should not be lost sight of by travellers in inaccessible regions.

2 THE WATER - SOLUBLE B.

The absence of the water-soluble B is the cause of the disease, beri-beri. Beriberi is a disease of the nerves, and it was found that other similar affections of the nerves, pellagra for example, could be experimentally produced by withholding this vitamine, and cured by reinstating it in the dietary; hence the term "anti-neuritic" by which it is sometimes known. This factor is essential to the normal growth, development and well-being of young animals. It is present in great abundance in all "quick" or natural foods, in grains and eggs. It is also present in the brain, liver, sweetbread and kidneys of animals, whereas from muscle or ordinary meat it is relatively absent. Yeast contains this vitamine in large quantities. In the vegetable kingdom, the leguminosæ afford it, uniformly distributed *throughout* their substance, whereas in cereals it is confined to the *outside* covering; hence the importance of unpolished rice, and whole meal bread. It is soluble in water, especially in slightly acidulated water, and in alcohol, but not in fats. It resists a relatively high temperature; it is present for example after boiling for a short period, but is destroyed at 120° C.

3 THE FAT - SOLUBLE A

In 1913 the third vitamine was discribed by Mc Collum and Devis. Its absence was shown to provoke a disease of the eyes, characterized by œdema of the lids, ulceration of the cornea, blindness and ultimately death. These lesions, even when in advanced states, were cured by the exhibition of the vitamine. The disease called rickets is caused by the absence of this vitamine. Its presence is certainly necessary to the growth and normal develop-

ment of young animals. It is found (a) in certain animal fats, i. e., milk, . butter, glandular tissue; (b) in the green leaves of edible plants. It is thus interesting to note that though present in essential organs or so called " noble " tissues, it is absent from connective tissue and reserve tissue, such as lard, or subcutaneous animal fats. Olive oil and other vegetable oils do not contain this vitamine, whereas cod-liver oil contains it in large quantities. Fat soluble A is soluble in oil, but not in water. It resists high temperature better than the other two.

Such was the state of our precise knowledge in 1921, concerning these elusive substances. This knowledge was still in a very embryonic state. That there is, in this matter, a very wild field of interesting and fruitful research awaiting us is obvious from the fact that the discovery of vitamines has entirely altered our conceptions of the causes and origins of disease. Until lately disease was regarded as a *sin of commission* by some unseen and subtle agency; the vitamines are teaching us to regard it in some degree at any rate as a *sin of omission* on the part of civilized or hyper-civilized man. By our habit of riveting our attention upon microbes and their toxins we had sadly neglected the side of the question which concerns itself with our *own defences*. We sterilized our children's milk against the bacillus, and in so doing we deprived it of its vitamines and thus lowered the resisting power of the victim, not to one microbe only, but to all. The importance of vitamines has taught us that the naturally nourished child is practically immune from the majority

of the diseases, which in spite of our bacteriological and hygeinic knowledge have been raising the infant death-rate to a figure which was as surprising as it was appalling. But it is to be remembered that in order to attain to this immunity a child must be born healthy; it must have been suitably nourished during its intra-uterine life and this can only be attained by feeding the prospective mother upon foods which contain the necessary vitamines in such an abundance as will satisfy the physiological needs of two. The gross diseases due to the absence of vitamines, such as scurvy, beriberi, pellagra and xeropthalmia, called the "deficiency diseases" (maladies de carence) are characterized by symptoms which are acute and unmistakable, but it is certain that long before these acute symptoms appear there will have been a general ill-defined departure from normal health called by the French "Carence fruste" or "hypo-carence," and the condition may never pass beyond this stage. It is thus not only futile but actually dangerous to seek to estimate, as has often been done, the minimum amount of vitamine which will insure protection from obvious disease. What is required is not the minimum but optimum. Amongst these conditions of "hypo-carence" may be mentioned the majority of the maladies due to the deficient action of the internal secretory or indocrine glands, such as, thyroid, thymus, supra-renals, pituitary, gonads and others, which have already been shown to suffer severely from deprivation of vitaminous foods. In the same category of "hypo-carence" are also to be placed many of the so-called metabolic diseases, such as gout, arthritis, and others. These may be occasioned directly by the

vitamine deficiency or indirectly by starving one or more of the indocrine glands of the all-essential principles. As might easily be supposed, this relative lack of vitamines is peculiarly liable to show itself in the gastro-intestinal tract.

Digestive difficulties and intestinal inertia, appendicitis and colitis have been shown in a great number of cases, to have been due to a lack of vitamines in the ordinary foods, a fact of which any one may convince himself in the matter of the widely distributed disease known as intestinal stasis or chronic constipation. It has often been remarked that dental caries or defective teeth is an evil which has seemed to be very much on the increase during the last twenty years; the period that is during which all fresh and unsterilized foods have been withheld from the young in order that they may be fed on devitalized pap which, in addition to requiring no mastication, is by boiling and culinary processes completely deprived of the vitamine content so necessary to the proper development and eruption of the teeth themselves. Vitamines have already revolutionized our ideas on dietetics. The erstwhile stereotyped proportions of the proximate principles, proteins, carbohydrates, fats and salts, which were considered essential to bodily health, have been so altered by the discovery of the vitamines that the whole question will have to be investigated and studied afresh, and the ineffable theory of calories which was based on the curious assumption that the behaviour of food in the human body was identical with its behaviour in a test tube, will retire to the limbo of things well forgotten.

The discovery of the vitamines presents would-be scientists with a much needed lesson in humility. It reminds us that, in evolving man, Nature provided him with the foods necessary to his growth, development and well-being, and that in interfering with these natural foods by cooking, sterilizing and refining, he has sacrificed their efficacy, sometimes to his greed, but more often to his arrogant assumption of superior knowledge, with the result that he has not only promoted the prevalence of preventable disease, but has actually created others which but for his misdirected energy would have had no existence.

— Leonard Williams, M. D.

(The Encyclopædia Britannica, New Volumes, 12th Edition, Vol. XXXII, p. 931.)

III.

PROPER FOOD - THE GREATEST PHYSIOLOGICAL NEED.

The need of the hour is for a more intensive study of the conditions under which perfect *health* and the highest degree of *efficiency* can be reached by the community at large.

The conditions of life must be so improved that the body and its organs can function in a thoroughly efficient manner

Among these conditions food and nutrition stand out pre-eminently and demand the greatest attention. *Good and properly selected food is the greatest physiological need of the body.*

True health is attained only by implicit obedience to the inexorable laws of nature. The laws of health for the plant and the lower animal are the laws of health for man in all the glory of his lofty intellect.

Man's intellect has enabled him to acquire such an independence of his natural surroundings as threatens his very existence.

Disorder and disease of the body has come to be regarded as inevitable and we are assuming a fatalistic attitude towards its ravages on our time and energies, which is utterly deplorable.

The appalling infant mortality in our cities, the poor physique of so many men and women and the distressing prevalence of sickness of all kinds, call for much earnest enquiry in search of some widely prevalent fault in the manner of living.

The discovery about 25 years ago of hitherto unknown factor in food substances – the Vitamines – opened the eyes of scientists to the fact that there was much more to know about foods than their mere chemical composition.

Apart from actual disease there are too many people whose standard of mental and bodily health and efficiency is far lower than it should be. People who are always tired and complaining and who go about their work in a joyless disheartened fashion, devoid of enthusiasm, and to whom life is one long effort, are numerous in all classes of the community and are the discontents and unemployables who clog the wheels of progress, create disharmony around them and foster revolution.

Overfeeding is much commoner than underfeeding at any rate in this country (England) and in America, and it is a commonly accepted fact that we most of us are tempted by the pleasures of the table to eat a good deal more than our bodies need. Overeating is largely induced by the temptation to eat too much savoury meat and highly sweetened foods. Foods that are enjoyed for their *natural flavour* are not nearly so likely to be taken to excess.

Civilization has its penalties as well as its blessings, and not the least of these is the bad health and feeble stamina induced by a radical departure from the natural diet.

The *absence* of sufficient fresh uncooked, undamaged food stuffs in the diet is undermining the health and vigor of a very large proportion of the town and city dwellers in civilization who in a fatal ignorance of the true character of nutritive foods, think they are well fed.

If sufficient green food, fresh or preserved fruit and dairy products are taken in the diet an ample supply of all necessary mineral salts will be obtained. They are as necessary to the life processes of man's body as to those of the plant.

— Extracts from " What's Best To Eat ? "
by Dr. Belfrage, M. D.

IV.

BIAS OF CUSTOM AND DESIRE.

In giving the whole subject of diet the thoughtful consideration it deserves, we should be careful not to be

biased by *Custom* and *Desire,* for the body is largely a creature of habit and it craves that to which it is accustomed. Should we, at any time, deem it was wise to acquire other habits, it is easy to do so, and when the body has become used to them, it will desire the new kind of food just as much as it did the old.

— Extract from " Ways to Perfect Health "
by Irving S. Cooper.

V.

FOOD, SIMPLE AND NATURAL.

If any generalization about food is safe, it is certainly safe to say that practically every one needs to drink more milk and eat more green vegetables and fruits. These articles of food not only contain all sorts of vitamines, but most mineral salts and iron, so necessary for proper growth and nutrition.

— Dr. M. Nicoll, M. D.
(" Physical Culture " for March, 1924.)

VI.

EAT VITAMINES FOR VITALITY,

Few and far between are the men and women who can say they have never experienced sickness; who are full of healthy vim and snap; who are normal physically and mentally.

The paths of modern feeding lead to the grave. There is evidence of senile decay when you are inordinately fatigued. You are old when you are tired.

But many of you may rejuvenate if you have a

mind open to conviction, and will seek in Nature's book the key to health, longevity and happiness.

Change your diet and you can change your days.

We are ruled by false appetites rather than by instinctive intuition or by reason.

We have devitalized our bodies by eating foods deprived of vital vitamines and mineral salts.

Lack of intelligent exercise and incorrect feeding is at the base of many of your troubles. Denatured, demineralized, devitalized foods have been undermining you mentally and physically.

The habit of tea and coffee drinking is accompanied by the nerve and stomach endangering effects of caffeine and caffetannic acid.

Natural immunity to disease is *lost* if we eat denatured, demineralized, devitalized foods.

Dr. John Maxwell, in "Hill's Golden Rule," Chicago, for January, 1920.

VII.

(a) MEAT NOT NECESSARY.

Animal flesh is not strictly necessary, and no one will be the worse who for sentimental or other reasons does not include either butcher's meat, fish or bird in his dietary. Some of the finest races of mankind seldom or never eat flesh foods and practical experience has shown that flesh abstainers are capable of as great or greater endurance than flesh eaters,

The individual who abjures flesh but takes milk, eggs and cheese, is probably on the safest ground. He claims that meat is unnecessary, that it contains the poisonous waste products of the animal which supplied it, that it is generally eaten to excess, that the eating of it is apt to be followed by a lethargic condition, that some of the best intellects and most useful lives have belonged to men who abjured flesh foods and that the eating of flesh is a relic of barbarism. There is much truth in these claims. We may add to them the fact that the raising of meat *on economic grounds* is grossly extravagant, seeing that the dairy cow is capable of returning at least 18 per cent of the food value of food she consumes, while the sheep and ox can only return 3.5 per cent.

Of the animal protein foods *milk* not only contains the best possible class of protein, but it is rich in vitamines and mineral salts. It is almost a perfect food in itself since it also contains a good fat and a good sugar. One and a half pints of milk contain *enough first - class protein* for the day's dietary. It is easy of digestion if taken slowly so that it does not form large curds in the stomach, and it can be of course combined and cooked with other foods.

— Extract from " What's Best To Eat ? "
by Dr. S. H. Belfrage, M. D. (London), 1926.

[b] MEAT WHOLLY UNNECESSARY.

A very limited amount of time devoted to the study of the Chemistry of food would reveal the fact to any intelligent person that *meat is wholly unnecessary*, that

it contains absolutely nothing that cannot be supplied from other things, but that it does contain much poison that other things do not contain which is responsible for a great deal of physical trouble. This study would convince the housewife and mother that every chemical element of which the body is composed can be supplied in its *best* form from the vegetable world.

Don't eat much meat, none is better.

— Dr. Eugene Christian, F. S. D., in his book "How to Live 100 years."

[c] Meat - eating shortens life.

— Harold L. Graham, in "The Oriental Watchman and Herald of Health" for November, 1927.

[d] FRUITARIANISM.

For more than a quarter of a century I have eaten no flesh food, and so I have tested fully and for myself in practice both sides of the question. And as a fruitarian I am more and more conscious that the progress of the higher or more cultured classes is from Carnivorism towards Fruitarianism - from meat - eating towards fruit-eating.

— Dr. J. Oldfield, D. C. L., M. A., L. R. C. P., etc., in his book "The Diet for Cultured People."

[e] PROTEID FOOD FROM NUTS AND LEGUMES.

The changes which take place in the digestion of proteids are considerably affected by the nature of our

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diet. The Nitrogen compounds break down into waste products, chiefly Urea and Uric Acid which are excreted by the kidneys. The latter acid is almost insoluble in water and requires chiefly the alkaline element sodium to dissolve this acid as urate of sodium.

If, however, the food, eaten is deficient in sodium, or too rich in nitrogen, there will be a surplus amount of uric acid formed which will cause harmful precipitations in the body. Hence we have such diseases as rheumtism, gout, gravel and kidney diseases.

In carnivorous animals, the dog and cat, the liver is able to destroy most of the uric acid formed, but as man has not this power, it shows clearly that he is not adapted by nature to eat butcher meat which besides being a concentrated proteid always contains the waste poisons, creatine, leucomaine, uric acid, &c., found in all animal tissues. To be plain then the great hygeinic error in eating flesh-meat is that the body gets an extra supply of waste matter which accumulates in the system, owing to the body having sufficient work to do in expelling its own uric acid, &c. Man ought to select his proteid food from nuts, legumes, &c., free from harmful waste poisons and to use a plentiful supply of fresh vegetables rich in alkaline mineral elements which neutralize the normal uric acid and cause it to be excreted without difficulty.

—" Health " for Dec. 1927, p 222.

This condemnation of animal food on strictly scientific grounds proves that " Bhāji Bhākari " (sauced vegetable and jwari bread) is the best and cheapest healthful diet. ' Bhākari ' gives the proteids and ' Bhāji ' supplies the alkalies and the vitamines.

VIII

ABSTEMIOUSNESS.

Thomas A. Edison, nearly eighty - one years old, the world's greatest inventor, says – ' They (his father and grandfather) had found that the secret of long life and perfect health lay in *right eating*. As for me, I only eat because I want to *live*. As a result, my body is not poisoned with decaying, surplus food. My arteries are as soft as a child's. "

— " Complete Life Building Method of the Ralston Health Club " (1926), p. 24.

IX.

VITAL FOOD FACTORS.

Get the salad habit. Your motto should be ' salads for health. ' ' A salad a day keeps the doctor away ' is a far more truthful slogan than the more old fashioned one about an apple or an onion a day. Green food and salad materials contain absolutely indispensable elements for our health, and to disregard them is to invite serious consequences. It has been abundantly proved of first importance that the body should at all times have an adequate supply of (vitamines and) purifying organic salts.

What you lose by neglecting salads and green - stuffs is the power to get rid of the acids which form in the blood stream and the broken down effete waste matter, which is the result of your physical and mental work.

— " Health and Efficiency " (London) for September, 1927.

A careful perusal of the above extracts from the works by experienced medical authorities, scientists, and expert dieticians, of meat-eating countries in Europe and America will, we hope, induce or enable our readers to make an intelligent selection of wholesome and nourishing food-stuffs, appropriate for individual needs.

To obtain the best results, however, from such diet an all-round physical exercise, like Sūrya Namaskārs, is absolutely necessary. A happy combination of a suitable diet and a suitable exercise will secure you health, efficiency and longevity.

The results of an examination of the opinions of modern American and European dieticians and of the facts of our own personal experience, we may summarize as under —

[1] MILK.

There should be an ample supply of fresh clean milk (not boiled or pasteurized) in our daily meal. Each individual should have at least a cup of clean fresh genuine milk – preferably cow's milk – at each meal. All milk products – curds, buttermilk, butter, ghee – may be partaken of with benefit.

[2] FRUITS.

A liberal use of fresh fruits and berries, is always desirable. Among the health-giving and nourishing fruits and berries may be mentioned : plantains, oranges, lemons, citrons, mangoes, pears, grapes, figs, raisins, apples, pineapples, guavas, jack-fruit, melons, dates, peaches, pomegranates, custard apples (सीताफळ), bullock's heart-fruits

(रामफळ), jujubes, strawberries, corinda fruits (करवंद), &c. Sugarcane may occasionally be used.

[3] NUTS.

A small quantity of nuts should form part of your meals. Among nourishing nuts may be mentioned : almond, date, cocoanut, ground-nut or pea-nut, walnut, apricot, cashew nut, pistachio nut, chirongia sapida (चारोळी), &c.

Parched nuts very slightly salted make a delicious dessert.

[4] WHOLE GRAIN.

Whole brown rice (unpolished), whole wheat, whole leguminous grains, (i. e. with husk or bran unremoved), jwari, bajri, maize, &c., should be used cooked, soaked in water or raw according to one's digestive strength.

[5] GERMINATED GRAIN.

The grains mentioned in section [4] will give better results if they be allowed to germinate before being used.

Germinated peas (वाटाणा), grams (हरभरा), beans (पावटा), pigeon-peas (तूर), green grams (मूग), kidney beans (मटकी), lentils (मसूर), black grams (उडीद), chavalee beans (चवळी), horse gram (हुलगा, कुळीथ), &c., when crushed in a food-chopper, seasoned to taste and mixed with grated cocoanut and onion, will make a very tasty food, affording a goodly supply of vitamines and mineral salts.

[6] GREEN VEGETABLES.

Green (uncooked), tender, leafy, edible vegetables,

or their fruit if any, or both, such as celery, water-cress, lettuce, spinach, cauliflower, cabbage, fœnugreek (मेथी), lady's finger (भेंडी), cluster-bean (गोवारी), cucumber (काकडी, वाळूक, तवसें), cucumis acutangulus (दोडका), goose-foot (चाकवत), wood-sorrel (चुका), elephant-ophus scaber (पाथरी), brown hemp (अंबाडी), tender gram-leaves (पळश), safflower (करडी), chenopodium (चंद्नबटवा), obraceus candidus (राजगिरा), amaranthus (माठ), gourd (भोपळा), &c. will, if treated as in section [5] furnish ingredients and roughage necessary for health and elimination.

NOTE — All these leafy vegetables should be used green [uncooked], for cooking destroys part of vitamines, &c.

[7] ROOT, BULB AND FRUIT VEGETABLES.

Bulbs, roots, and fruit vegetables, such as potato, sweet potato, radish, carrot, onion, gourds of various sorts, snake gourd, brinjal or eggfruit, cucumis, cluster-been, tender jack-fruit, green plantain, &c., are healthful and nutritious. They may be used boild, baked, steamed or raw according to consumer's taste and power of digestion.

[8] TASTY ARTICLES.

Fresh, green, leafy, edible vegetables or their fruits, roots and bulbs, as radish, carrot, egg-fruit, onion, &c., and nuts grated and mixed with the above whole grains, soaked or germinated and seasoned to taste, will supply further varieties of appetizing articles.

[9] SUBSTITUTES FOR FRUITS.

Fresh fruits, as grapes, mangoes, oranges, figs, &c., are not available throughout the year; but whole grain,

as brown rice, whole wheat, gram, pea, &c., can be had always. A large variety of tasty articles, as **dangar*, † *papad*, ‡ *usal*, ¶ *sandaga*, &c., may be made from these grains, raw, germinated or cooked, and they will, to a certain extent, serve the purpose of fruits.

[10] TOMATO.

Tomato, a valuable vegetable from the nutritional point of view unfortunately finds little favour with the majority of our people. They should cultivate a taste for it as an important article of dietary; for the tomato yields large quantities of vitamines, mineral salts, &c., and admits of being used in a raw or cooked state in a variety of appetizing preparations. Another merit it possesses is its cheapness and fecundity. It can be eaten with salt or sugar to suit individual taste.

NOTE:- A description of the many ways in which raw vegetables can be used would take us far afield into the domain of cookery for health and away from Surya Namaskars. Readers must wait for cookery for health for some time.

* Dangar (डांगर) — Flour of black gram (उडीद), prepared with salt and peppers.

† Papad (पापड) — A sort of thin wafer-cake made of the flour of black gram (उडीद) or other pulse with spices.

‡ Usal (उसळ) — A dish consisting of pulse boiled, well-spiced and fried up with greens, &c.

¶ Sandaga (सांडगा) — A small ball of pompions, cucumbers &c., sliced or scraped up together, well-blended with spiceries and piquant ingredients, and dried. It is then fried before being served.

[11] EGGS.

Eggs or the yolk of eggs, next in importance to milk, may be used by those who have no objection to them.

[12] SUGAR.

Refined sugar might, with advantage, be dispensed with. It may be used very sparingly when absolutely necessary. Raw sugar or honey may be a better substitute.

NOTE :– The articles of diet referred to in this Chapter are mentioned only with a view to pointing out their dietetic value. The list is neither exhaustive nor compulsory. The vegetables, legumes, cereals, &c., which are objectionable on grounds of religion or individual dislikes or idiosyncrasies may be omitted. For instance, many persons are found to dislike onion, garlic, lentils, beans, radish, gourd, &c. They may omit them from their dietary.

Modern diet hangs too many anchors on health. You can feel their drag. You live, but the thrill is lacking. Vibrant health and radiant energy depend upon internal behaviour. And nothing maintains this inner cleanliness so perfectly as proper diet and proper exercise like Surya Namaskars.

RULE OF HEALTH.

The general rule of health given by F. C. Haddock in his book "Power of Will" is worth observing :– "Food should be regulated according to peculiarities of body and general work performed. Water which is pure should be freely drunk. Plenty of sound sleep should be secured, and slumber should be enhanced by plenty of pure air. Most people drink too little water. The air of many sleeping rooms would kill a wild Indian. Regularity of habits should be cultivated. Sufficient exercise must be

taken to keep the muscles from degeneration and to vitalize the blood by activity of lungs."

This chapter on diet cannot be closed without a word of warning especially to the young enthusiast in health culture. Do not be led away with the idea that the true test of your physical powers is your capacity to gorge large quantities of eatables. Emphasis is laid on this particular form of weakness, because it is so common.

Another form of weakness is a sort of vanity of finishing one's meal in a very short time. Both these weaknesses should be avoided. They result in throwing an unwarranted burden on the digestive organs and produce conditions most favourable to the inception of disease. Remember that most of the diseases are due to overeating or hurried eating which is a form of wrong eating.

If you feel that your liver or stomach is not working properly, do not drug yourself, but observe a fast and take the extra load off your stomach or liver.

"Hurried, nervous eating, overeating and exhibition of temper when meals are late are all expressions of food; swallowing it without the necessary insalivation, has become a fixed habit with most civilized people. This is one of the principal causes of stomach and intestinal trouble."

— Dr. Eugene Christian, F. S. D., in his book, "How to Live 100 years."

"The one great universal cause of sickness and disease is congestion of the stomach. The worst condition is constipation. Congestion of the stomach is caused, and

is also increased by use of false foods and drinks. It is lessened and ultimately cured by the use of the true foods and drinks.

" Most foods now are crimes against Nature."
—" Complete Life Building Method of the Ralston Health Club," (1926.)

The question is often asked, " How many meals a day should be taken?" Though the answer may depend on a number of factors regarding the capacity of the eater, the life he leads, the quality and quantity of food he takes, still we venture to say from our own experience and that of others that for an average Indian, man or woman, only two meals a day with no snacks between till fifty-five or sixty and only one meal after that age, would be quite enough.

SPECIAL REGIMEN UNNECESSARY.

In the case of Sūrya Namaskār exercise no special regulation of diet or regimen is imposed or recommended as is done in the case of athletes and wrestlers in training. A quarter or half a * *sher* of clean fresh cow's milk may, if one could afford it, be taken with advantage an hour or so after the Namaskārs. It is not, however, indispensable. The golden rule of two meals a day for the young, with no snack between, and one meal for the old, should be observed by all. None, therefore, who do Sūrya Namaskārs will ever be troubled or afflicted with indigestion or other ailments due to overfeeding.

"To me a diet of one exclusive fruit meal and one

* One *Sher* is eighty tolas in weight or a little over two lbs.

hearty mixed meal seems to be ideal for civilized man. Too frequent eating without a normal hunger is undoubtedly *one of the greatest curses* of mankind. Early breakfast is simply a habit-meal that tends to prevent the development of *real* hunger. It merely stimulates as coffee or hot water will do. Practically all the energy available for any one day is derived from food eaten during the preceding day and assimilated during the preceding night of rest.

"Nothing between meals is an important rule of mine. Nothing enters the stomach between meals but water and on rare occasions unsweetened orange or grape fruit juice."

—Dr. Mc Donald, M D., D.O.,
in "Physical Culture" for Aug. 1928.

FASTING.

However careful we may be in selecting the proper food and in regulating the quantity, some undesirable and unnecessary edibles and liquids find their way into our stomach, owing partly to our ignorance and partly to force of habit, and are likely to cause trouble.

To counteract this unpleasant result, fasting, as a remedial measure, is absolutely necessary.

The Golden Rule is to fast when you lose appetite. Loss of appetite is nature's warning that no more burden should be laid on the digestive apparatus of the body. It is a good plan to set apart for fasting a certain day each week or each fortnight.

In many religious orders certain fast days have been set aside, as lent, roza, ekadashi, etc. ......

A fast may be *complete* or *partial*. In a complete fast nothing but pure water is taken.

"There are" says Macfadden, "many partial fasts that can be used advantageously :—

"(1) Instead of fasting entirely, many people take orange juice or two or three oranges during the day, or one at each meal time. If the alimentary canal needs cleansing, it is often a good plan to eat the white pulp under the peeling with the orange. I have known instances where one has eaten the peeling and the seeds of the orange to advantage. This roughage of course materially exhilarates the activity of the alimentary canal, increasing the peristaltic action considerably.

"(2) Another partial fast that can be recommended is one glass of buttermilk three times a day. Buttermilk has a cleansing effect upon the stomach and the alimentary canal, and of course materially lessens the unpleasant effect of the fast.

"(3) Vegetable consumme can be taken instead of water several times a day.

"(4) Honey is of unusual value in giving one a restful feeling during a fast. The water you drink can be sweetened to taste with honey. It seems to take away your appetite and gives you increased energy; and outside of a loss of weight you will hardly know you are fasting if you drink water sweetened with honey."

Bernarr Macfadden observes in "Physical Culture" for October, 1926 :— "Overfed folk die before their time. A fast is the finest tonic. Don't be a slave to habit.

hunger. Longevity of the Ancients can be ours by judicial fasting,"

SCIENCE CONFIRMS VALUE OF FASTING.

"The cure of disease by fasting is, next to the cure of disease by a miracle, the most dramatic therapy known to mankind. It is as if a man should find life by deliberately shaking hands with death.

"One notion which Dr. Morgulis conclusively explodes is the idea that fasting is injurious. He has established by an elaborate series of test on men and animals that a fast continued till there is a loss of 10 to 15 per cent of the body weight, is not only innocuous but is highly beneficial.

"Dr. Morgulis has come to the conclusion that fasting is definitely a means of reinvigorating the organism.

"He finds also that the complete fast involving entire abstention from food, is the least dangerous form of fasting to attempt."

—John Hayden, in "Physical Culture" for July, 1927.

HABITS.

Now a word on habit-forming articles, ignorantly regarded as food, that spoil health, such as tea, coffee, cocoa, etc. Science and practical experience have established the fact that the sweet aroma and flavor of these stimulants are more than counteracted by the poisonous ingredients contained in them. A long continued use of these articles is positively harmful to the digestive organs and to the entire nervous system and thus is a prolific

source of a variety of chronic diseases afflicting the present generation; and the evil may affect future generations also.

The surest remedy to do away with this evil will be found in the advice given by F. C. Haddock, M. S., Ph. D., in his great work, " Power of Will. "

" All evil habits, " says he, " may be destroyed by man who really desires to master them.

" ...... The cure of bad habits is to be effected by *destruction of desire* for their indulgence. The desire of course precedes the act and should have one's attention; it can do but little good to refuse the act over and over again, always *leaving the desire unmolested, unconquered.*

" If there is not enough manhood left in you to desire reform, you must consult a physician or a " cure; " and if this will avail nothing, then, to be sure you must go on as a *slave.* "

METHOD OF COOKING.

A word or two on cooking food the health way, will not be out of place:—

Thousands of our people, especially those living in cities and towns, are actually starving in spite of a most bountiful and daintiest table. For really it is not always how much or what you eat, that determines your health and strength, but it is the proper selection, combination and cooking of foods that are of vital importance to your well-being.

The ordinary method of cooking vegetables, cereals, legumes, etc., in *boiling water* destroys the nutritive

elements contained in them. The excess water after boiling is usually discarded and the washed out remnants of the food are eaten.

"This loss of nutritive elements by the boiling process is not an imaginary or theoretical conception. Because the lost elements are soluble in water and, therefore, invisible, one is not likely to realize how very serious is the loss. Recent tests at the University of Wisconsin showed that such losses from boiling foods in water are really very serious.

Sixteen kinds of vegetables tested for the various ingredients showed losses from boiling that ranged from about 10 per cent in the case of potatoes to as high as 60 and 70 per cent in the case of some of the mineral elements of leafy vegetables. The loss of calcium and iron was particularly high."

Our ignorant cooks and most housewives boil dead many vegetables, cereals and legumes in water and throw the boiled water in sink or sewer, nay the water is sometimes even changed two or three times! All the mineral salts are lost in this way. These salts are vitally necessary to health.

When the vegetables, &c., are thus rendered tasteless and flavourless, sauces and spices are poured over them in the vain effort to restore to them the lost taste or flavour.

These same foods, however, when cooked by the modern methods in cookers, that retain all the nutritive and flavour elements, will have a richness and indi-

viduality of taste that could not be equalled or imitated by the most elaborate sauces and dressings.

We have long been eating foods cooked in a cooker. After trying many makes of cookers, we find the one designed by Mr. Vajirav R. Guttikar, retired Sub-Judge, Belgaum, to be the best, simplest, most economical and efficient. We strongly recommend it to our readers.

LAST WORD OF CAUTION.

Dear reader, we are out for Health, Efficiency and Longevity and we are not out for large and prominent muscles. Therefore, we would advise you to find out for yourself the amount of the Namaskār exercise that is good for you as well as the quality and quantity of food that you need and the amount of work and recreation and rest.

One has personally to adjust the equation between work and rest, between sleep and wakefulness and between food and exercise by careful experimentation. General directions are all that could be given here.

There is a beautiful saying* in Marathi which means that men's constitutions differ as do their faces and hence each individual must find out for himself the proper relations of study to play and of work to rest.

The Bhagavad Gītā says, " He whose food and activity or exercise are properly regulated, whose toil and rest are properly adjusted in all works, and whose sleeping and waking hours are properly determined, to

* जितक्या व्यक्ति तितक्या प्रकृति.

such an one does the highest benefit come. †

Proper selection, therefore, of diet from vital foods, with fasting at frequent intervals, when coupled with regular, systematic Sūrya Namaskārs, will, in a single generation, produce wonderful improvement in health, strength, vigor and bodily size of our people.

† युक्ताहारविहारस्य युक्तचेष्टस्य कर्मसु ।
युक्तस्वप्नावबोधस्य योगो भवति दुःखहा ॥
-- Bhagavad Gita, VI, 17.

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CHAPTER XIV.

CASH VALUE OF HEALTH.

Most people think that if they did more business, they would enjoy life better, but they do not appreciate the fact that if they enjoyed life better they would do more business. Unless they are healthy they can never enjoy life. "The man, who comes down to business in the morning with a smile on his face, has taken a long step towards making the day a successful one." Man's first duty, therefore, is to acquire superb health. Your success financially and socially depends upon your health.

Says Emerson, "The first wealth is Health. Sickness is poor-spirited and cannot serve any one; it must husband its resources to live. But health or fulness answers its own ends, and has to spare, runs over and inundates the neighbourhoods and creeks of other men's necessities."

The annual loss of industry and commerce, not to mention the privation entailed on private families, brought about by illness and physical inefficiency on the part of the individual workers alone is beyond computation.

Time has now come that some strenuous effort be made in all seriousness to overcome this national degeneration and economic inefficiency. Till now a number of different ways and methods have been tried with little success.

In spite of the so-called advance of the medical science, old diseases are on the increase and new ones are coming into existence. All this is entirely due to the inexcusable or culpable neglect of the wise maxim — "Prevention is better than Cure." All our energy should now be directed to adopt immediate measures to prevent rather than to cure disease. Some scientific and systematic form of bodily exercise, therefore, should be enforced upon the young generation in general and upon the school and college going students in particular.

To make such exercise universally acceptable, practicable and convenient, it must fulfil the following conditions :—

(1) It can be taken by any person, male or female, young or old.

(2) It should admit of being done singly or *en masse.*

(3) It can be taken anywhere in a room or in the open air.

(4) It can be done in a short time.

(5) It can be taken during day or night.

(6) It can be done in all the seasons of the year.

(7) It can be taken without the necessity of a companion or outfit.

(8) It should require no previous training or preparation.

(9) It should involve no expense.

(10) It can be taken throughout one's life.

(11) It should have support and co-operation from the parents and guardians of students.

(12) It should be efficient.

As no other sport or exercise but Sūrya Namaskārs can satisfy the aforesaid conditions or achieve the innumerable *benefits to be derived from the systematic practice of Sūrya Namaskārs, we recommend with all the emphasis at our command that the Namaskār exercise be made compulsory in all schools and colleges throughout India.

* See Chapter XV.

CHAPTER XV.

WHAT CAN SURYA NAMASKARS DO?

When done *daily*, systematically and according to our instructions, the Sūrya Namaskār exercise —

1. Strengthens the entire digestive system (including stomach, pancreas, intestines, liver, etc.) and cures and prevents constipation.

2. (a) Invigorates the central nervous system (including the brain, spinal cord, &c.) and cures brain-fag, forgetfulness, worry and other forms of mental derangement. Though shattered nerves take a longer time and are more difficult to repair than other cells, our graduated course of Sūrya Namaskārs will slowly but surely restore them to normality.

   (b) Stimulates and strengthens the Solar Plexus.

3. Invigorates the heart and will cure and prevent blood-pressure, &c.

4. Develops the lungs, gives "wind" and prevents tuberculosis.

5. Improves the quality and circulation of the blood. Active circulation of the blood is the *first* law of health.

6. Stimulates glandular activity; gives a new vivacity to the glands. Owing to the stretching and compressing movements of the throat, the thyroid gland is stimulated and any tendency to goiter is obviated. Correct glandular functioning governs health and attractiveness.

7. Improves the color and function of the skin by enabling it to eradicate toxic impurities through profuse perspiration A clear skin glowing with ruddy health and vigor is a winning factor for men and women in business and in social life.

8. Strengthens the neck, shoulders, arms, wrists, fingers, back, waist, abdomen, thighs, knees, calves and ankles. Strengthening the back is known to be a simple but efficient remedy for kidney troubles.

9. Improves and develops the bust of maids and matrons; keeps it hard, firm and elastic; restores it to normalcy.

10. Improves the uterus (womb) and ovaries; removes menstrual disorders and consequent pain and misery; renders child-bearing less painful.

11. Increases the quantity and improves the quality of milk in nursing mothers.

12. Prevents falling off of hair; lessens its tendency to grayness.

13. Eradicates sexual debility; will banish the

special weakness of men and women; will make every man a virile and vital specimen of masculinity and will make every woman a splendid specimen of womanhood.

14. Reduces redundant fat, especially the fat about abdomen, hips, thighs, neck and chin.

15. Will remove kidney troubles.

16. Reduces the abnormal prominence of the Adam's apple by the forward bending of the neck.

17. Destroys the offensive odour of perspiration.

18. Reduces bow-leggedness.

19. Not merely gives you external form, shapeliness and muscle of the body, but improves and normalizes the function of most of the vital internal organs.

20. Makes you immune from disease by tremendously increasing your disease-resisting power. The practical test of health is that one should never have even ordinary cold or cough, which is regarded even by some medical men as inevitable or as a matter of course. A healthy person never feels that he has any organ or limb.

21. Takes you step by step quickly, easily, surely—from your present condition to the very height of physical perfection.

22. Is the quickest method for increasing and maintaining youthful buoyancy. The spirit of

youth represents an invaluable asset. It is wonderful and satisfactory to know that you are fit and getting the most out of life. Then you have the jump on your fellowmen.

23. Endows the performer with more mental and psychic power.

24. Is the foundation of healthy and sane life and will be of incalculable benefit to you throughout your life. Long, systematic, continuous and daily practice of Sūrya Namaskārs and right diet, as outlined in Chapter XIII, will, in addition to vibrant health and radiant energy, invariably create in you a dislike for all stimulants and sedatives; an aversion to hot things such as capsicum or chilly, pepper, spices and condiments; a disrelish for fried articles in general; and to top them all, generates in you the inestimable habit of abstemiousness, which will help you to live long. " The instances of longevity, " says Sir W. Arbuthnot Lane, Bart., C. B., England's great surgeon, " are chiefly among the abstemious. " In fact, you gradually become partial to " Sātvika " diet, as defined in the Bhagavad Gītā, XVII, 8. *

* आयुःसत्वबलारोग्यसुखप्रीतिविवर्धनाः ।
रस्याः स्निग्धाः स्थिरा हृद्या आहाराः सात्विकप्रियाः ॥

The kinds of food which increase life; vitality; strength; health; pleasure or joy of living; cheerfulness and philanthropy or fellow-feeling; (and) which are juicy; fatty or oily; substantial, solid or giving lasting satisfaction to hunger and delicious or heart strengtheners, are dear to the Satvika or good.

25. Will keep you away from sins, " for sin is the product of weakness and disease. "

26. Will generate in you good thoughts, optimistic thoughts; will give a charitable and sanguine turn to your disposition and will imbue you with a spirit of self-sacrifice for the good of your community, your country and your king.

27. Will, in short, unlock the door to glorious health, strength, efficiency and longevity, which God intended for you.

We do not profess that the Sūrya Namaskārs are a panacea for all the ills that the human flesh is heir to, but we do claim that this system of exercise, if loyally and steadfastly followed, will reward the performer with superb health, vibrant energy, active efficiency and useful longevity.

———O———

CHAPTER XVI.

CONCLUSION.

Before concluding, we should like to place before the reader for his consideration the following extract from the article, "Expectation of Life," by Dr. Radha Krishna, M. B., B. S., published in "The Vedic Magazine," Lahore, for September, 1927, on the subject of longevity, remedies for individual health, etc. :—

"REMEDIES SUGGESTED FOR INCREASING THE EXPECTATION OF LIVES IN INDIA.

"Before suggesting the remedies, it is worth while to consider whether increased expectation of life or the extension of life is really necessary. Dr. Sylvester Graham thinks life can be extended only at the cost of intensiveness, because intensive and extensive are incompatible with each other. But it has been amply proved by the modern physical culturists that by proper methods, life can be made both extensive as well as intensive without sacrificing one for the other. Extention of life is also necessary because of :—

"1. The enjoyment peculiar to old age. Healthy old age is really the highest blessing.

"2. From nations' standpoint, an old intellectual man of 80 is a valuable asset of his country, playing his part as adviser and judge, being endowed with his long experience of life and devoid of all passions of lust and conceit. He is more valuable than he was at the age of 40 and

also more valuable than two men of 40 years each under the same conditions. It has been truly said that the death of healthy old people soon after the age of 50 is a national calamity. The extension of life should, however, be associated with the preservation of intelligence and of the power to work, for which the following aids are suggested by various authorities at various times :—

" REMEDIES

1. Brahmacharya and marriage reform. 2. Physical culture and dignity of labour. 3. Simple and hygienic life. 4. Sanitary conscience. 5. Mental hygiene. (Poise and Optimism).	For individuals.
6. Child and maternity welfare. 7. Sanitation and prevention of communicable diseases. 8. Educational measures.	For community as a whole.

" One can mention only the names of the remedies here, the extension and description of each remedy demanding an essay for itself. One can briefly mention, however, a few of the reputed programmes for increasing the expectation of life.

" For individuals, the following 15 rules of hygiene as suggested by the Life Extension Society of America, a society of 100 selected medical men of America, are the best :—

A. – Air

1. Ventilate every room you occupy.
2. Wear light, loose and porous clothes.

3. Drill, out of door occupation and recreations.
4. Sleep out if you can.
5. Breathe deeply.

B. – Food.

6. Avoid over-eating and over-weight.
7. Eat sparingly of meats and eggs.
8. Eat some hard, some bulky, some raw foods.
9. Eat slowly.

C. – Poisons.

10. Evacuate thoroughly, regularly and frequently.
11. Stand, sit and walk erect.
12. Do not allow poisons and infections to enter the body.
13. Keep the teeth, gums and tongue clean.

D. – Activity.

14. Work, play, rest and sleep in moderation.
15. Keep serene.

" The underlying idea in framing these rules being that they should be :—

1. Not artificial, but natural.
2. Not difficult, but easy.

" These rules when followed —

1. Delay decay and death.
2. Avoid individual and racial deterioration

and

3. Prevent disease."

A careful perusal of the above excerpt will clearly show how natural and easy our Sūrya Namaskārs are and how when coupled with proper diet and fasting they will bring about results identical with those enumerated in the last paragraph of the aforesaid quotation.

In conclusion, we have no hesitation in assuring our readers – men and women, old and young, rich and poor, strong and weak – that a faithful practice of the Sūrya Namaskārs in accordance with directions laid down above, and coupled with proper diet and fasting, will reward them not only with individual but with National Health, Efficiency and Longevity for the service of their country and of their king.

——O——.

Unabridged Sūrya Namaskārs with the Pranava, the Bīja Mantras and the three Vedic hymns, as recited by the followers of Rigveda and Krishna Yajurveda :—

॥ श्रीः ॥

तृचाकल्पनमस्काराः ।

आचम्य प्राणानायम्य । ममात्मनः श्रुतिस्मृतिपुराणोक्तफलप्राप्त्यर्थं श्रीसवितृसूर्यनारायणप्रीत्यर्थं च तृचाकल्पविधिना नमस्काराख्यं कर्म करिष्ये ।

(पात्रे जलं गृहीत्वा तन्मध्ये गंधाक्षतपुष्पाणि क्षिप्त्वा)

ध्येयः सदा सवितृमंडलमध्यवर्ती । नारायणः सरसिजासनसन्निविष्टः ॥
केयूरवान् मकरकुंडलवान् किरीटी । हारी हिरण्मयवपुर्धृतशंखचक्रः ॥

(इति ध्यात्वा)

१ ॐ ह्रां उद्यन्नद्य मित्रमहः ह्रां ॐ मित्राय नमः ।
२ ॐ ह्रीं आरोहन्नुत्तरां दिवं ह्रीं ॐ रवये नमः ।
३ ॐ ह्रूं हृद्रोगं मम सूर्य ह्रूं ॐ सूर्याय नमः ।
४ ॐ ह्रैं हरिमाणं च नाशय ह्रैं ॐ भानवे नमः ।
५ ॐ ह्रौं शुकेषु मे हरिमाणं ह्रौं ॐ खगाय नमः ।
६ ॐ ह्रः रोपणाकासु दध्मसि ह्रः ॐ पूष्णे नमः ।
७ ॐ ह्रां अथो हारिद्रवेषु मे ह्रां ॐ हिरण्यगर्भाय नमः ।
८ ॐ ह्रीं हरिमाणं निदध्मसि ह्रीं ॐ मरीचये नमः ।
९ ॐ ह्रूं उदगादयमादित्यः ह्रूं ॐ आदित्याय नमः ।
१० ॐ ह्रैं विश्वेन सहसा सह ह्रैं ॐ सवित्रे नमः ।
११ ॐ ह्रौं द्विषंतं मह्यं रंधयन् ह्रौं ॐ अर्काय नमः ।
१२ ॐ ह्रः मो अहं द्विषते रधं ह्रः ॐ भास्कराय नमः ।

१३ ॐ ह्रां ह्रीं उद्यन्नद्य मित्रमह आरोहन्नुत्तरां दिवं ह्रां ह्रीं ॐ मित्ररविभ्यां नमः ।

१४ ॐ ह्रूं ह्रैं हृद्रोगं मम सूर्य हरिमाणं च नाशय ह्रूं ह्रैं ॐ सूर्यभानुभ्यां नमः ।

१५ ॐ ह्रौं ह्रः शुकेषु मे हरिमाणं रोपणाकासु दध्मासि ह्रौं ह्रः ॐ खगपूषभ्यां नमः ।

१६ ॐ ह्रां ह्रीं अथो हारिद्रवेषु मे हरिमाणं निदध्मासि ह्रां ह्रीं ॐ हिरण्यगर्भमरीचिभ्यां नमः ।

१७ ॐ ह्रूं ह्रैं उदगादयमादित्यो विश्वेन सहसा सह ह्रूं ह्रैं ॐ आदित्यसवितृभ्यां नमः ।

१८ ॐ ह्रौं ह्रः द्विषंतं मह्यं रंधयन्मो अहं द्विषते रधं ह्रौं ह्रः ॐ अर्कभास्कराभ्यां नमः ।

१९ ॐ ह्रां ह्रीं ह्रूं ह्रैं उद्यन्नद्य मित्रमह आरोहन्नुत्तरां दिवं हृद्रोगं मम सूर्य हरिमाणं च नाशय ह्रां ह्रीं ह्रूं ह्रैं ॐ मित्ररवि-सूर्यभानुभ्यो नमः ।

२० ॐ ह्रौं ह्रः ह्रां ह्रीं शुकेषु मे हरिमाणं रोपणाकासु दध्मासि अथो हारिद्रवेषु मे हरिमाणं निदध्मासि ह्रौं ह्रः ह्रां ह्रीं ॐ खगपूषहिरण्यगर्भमरीचिभ्यो नमः ।

२१ ॐ ह्रूं ह्रैं ह्रौं ह्रः उदगादयमादित्यो विश्वेन सहसा सह द्विषंतं मह्यं रंधयन्मो अहं द्विषते रधं ह्रूं ह्रैं ह्रौं ह्रः ॐ आदित्य सवित्रर्कभास्करेभ्यो नमः ।

२२-२४ ॐ ह्रां ह्रीं ह्रूं ह्रैं ह्रौं ह्रः ॐ ह्रां ह्रीं ह्रूं ह्रैं ह्रौं ह्रः उद्यन्नद्य मित्रमह आरोहन्नुत्तरां दिवं हृद्रोगं मम सूर्य हरिमाणं च नाशय ॥ शुकेषु मे हरिमाणं रोपणाकासु दध्मासि अथो हारिद्रवेषु मे हरिमाणं निदध्मासि ॥

उद्गादयमादित्यो विश्वेन सहसा सह द्विषंतं मह्यं रंधयन्मो अहं द्विषते रधम् ॥ ह्रां ह्रीं ह्रूं ह्रैं ह्रौं ह्रः ह्रां ह्रीं ह्रूं ह्रैं ह्रौं ह्रः ॐ मित्ररविसूर्यभानुखगपूषहिरण्यगर्भमरीच्यादित्यसवित्रर्कभास्करेभ्यो नमः । (इति त्रिः)

२५ ॐ श्रीसवित्रे सूर्यनारायणाय नमः ।

आदित्यस्य नमस्कारान् ये कुर्वंति दिने दिने ।
जन्मान्तरसहस्रेषु दारिद्र्यं नोपजायते ॥ १ ॥
नमो धर्मविधानाय नमस्ते कृतसाक्षिणे ।
नमः प्रत्यक्षदेवाय भास्कराय नमोनमः ॥ २ ॥

अनेन तृचाकल्पनमस्काराख्येन कर्मणा भगवान् श्रीसवितृसूर्यनारायणः प्रीयताम् । न मम ।

अकालमृत्युहरणं सर्वव्याधिविनाशनम् ।
सूर्यपादोदकं तीर्थं जठरे धारयाम्यहम् ॥ ३ ॥
(इति तीर्थं गृहीत्वाचमनं कुर्यात्)

N. B. The three hymns used here are given with their explanation on pages 43 and 44.

——:O:——

Unabridged Sūrya Namaskārs with the Pranava, the Bīja Mantras and the Vedic Hymn as recited by the followers of Shukla Yajurveda :—

॥ श्रीः ॥

हंसकल्पनमस्काराः ।

आचम्य प्राणानायम्य ॥ तिथिर्विष्णुस्तथा वारं नक्षत्रं विष्णुरेव च । योगश्च करणं विष्णुः सर्वं विष्णुमयं जगत् ॥ अद्य पूर्वोच्चरितैवंगुण-विशेषण विशिष्टायां शुभपुण्यतिथौ ममात्मनः श्रुतिस्मृतिपुराणोक्तफल-प्राप्त्यर्थं श्रीसवितृसूर्यनारायणदेवताप्रीत्यर्थं च श्रीहंसकल्पेनोक्तविधिना यथाशक्ति नमस्काराख्यं कर्म करिष्ये ।

अथ ध्यानम् :— ध्येयः सदा सवितृमंडलमध्यवर्ती ।
नारायणः सरसिजासनसन्निविष्टः ॥
केयूरवान् मकरकुंडलवान् किरीटी ।
हारी हिरण्मयवपुर्धृतशंखचक्रः ॥

१ ॐ ह्रां हंसः शुचिषत् ॐ ह्रां मित्राय नमः ।
२ ॐ ह्रीं वसुरन्तरिक्षसत् ॐ ह्रीं रवये नमः ।
३ ॐ ह्रूं होता वेदिषत् ॐ ह्रूं सूर्याय नमः ।
४ ॐ ह्रैं अतिथिर्दुरोणसत् ॐ ह्रैं भानवे नमः ।
५ ॐ ह्रौं नृषत् ॐ ह्रौं खगाय नमः ।
६ ॐ ह्रः वरसत् ॐ ह्रः पूष्णे नमः ।
७ ॐ ह्रां ऋतसत् ॐ ह्रां हिरण्यगर्भाय नमः ।
८ ॐ ह्रीं व्योमसत् ॐ ह्रीं मरीचये नमः ।
९ ॐ ह्रूं अब्जा गोजाः ॐ ह्रूं आदित्याय नमः ।
१० ॐ ह्रैं ऋतजाऽअद्रिजा ॐ ह्रैं सवित्रे नमः ।

×

११ ॐ ह्रौं ऋतम् ॐ ह्रौं अर्काय नमः ।

१२ ॐ ह्रः बृहत् ॐ ह्रः भास्कराय नमः ।

१३ ॐ ह्रां ह्रीं हंसः शुचिषद्वसुरन्तरिक्षसत् ॐ ह्रां ह्रीं मित्ररविभ्यां नमः ।

१४ ॐ ह्रूं ह्रैं होता वेदिषदतिथिर्दुरोणसत् ॐ ह्रूं ह्रैं सूर्यभानुभ्यां नमः ।

१५ ॐ ह्रौं ह्रः नृषद्वरसत् ॐ ह्रौं ह्रः खगपूषभ्यां नमः ।

१६ ॐ ह्रां ह्रीं ऋतसद्व्योमसत् ॐ ह्रां ह्रीं हिरण्यगर्भमरीचिभ्यां नमः ।

१७ ॐ ह्रूं ह्रैं अब्जा गोजाऽऋतजाऽअद्रिजाः ह्रूं ह्रैं आदित्यसवितृभ्यां नमः ।

१८ ॐ ह्रौं ह्रः ऋतं बृहत् ॐ ह्रौं ह्रः अर्कभास्कराभ्यां नमः ।

१९ ॐ ह्रां ह्रीं ह्रूं ह्रैं हंसः शुचिषद्वसुरन्तरिक्षसद्धोता वेदिषदतिथिर्दुरोणसत् ॐ ह्रां ह्रीं ह्रूं ह्रैं मित्ररविसूर्यभानुभ्यो नमः ।

२० ॐ ह्रौं ह्रः ह्रां ह्रीं नृषद्वरसदृतसद्व्योमसत् ॐ ह्रौं ह्रः ह्रां ह्रीं खगपूषहिरण्यगर्भमरीचिभ्यो नमः ।

२१ ॐ ह्रूं ह्रैं ह्रौं ह्रः अब्जा गोजाऽऋतजाऽअद्रिजाऽऋतम्बृहत ॐ ह्रूं ह्रैं ह्रौं ह्रः आदित्यसवित्रर्कभास्करेभ्यो नमः ।

२२–२४ ॐ ह्रां ह्रीं ह्रूं ह्रैं ह्रौं ह्रः ॐ ह्रां ह्रीं ह्रूं ह्रैं ह्रौं ह्रः हंसः शुचिषद्वसुरन्तरिक्षसद्धोतावेदिषदतिथिर्दुरोणसत् । नृषद्वरदृतसद्व्योमसदब्जागोजाऽऋतजाऽअद्रिजाऽऋतम्बृहत् ॥१॥ ॐ ह्रां ह्रीं ह्रूं ह्रैं ह्रौं ह्रः ॐ ह्रां ह्रीं ह्रूं ह्रैं ह्रौं ह्रः मित्ररविसूर्यभानुखगपूषहिरण्यगर्भमरीच्यादित्यसवित्रर्कभास्करेभ्यो नमः ॥ इति त्रिः ॥

२५ ॐ श्रीसवित्रे सूर्यनारायणाय नमः ।

आदित्यस्य नमस्कारान् ये कुर्वंति दिने दिने।
जन्मान्तरसहस्रेषु दारिद्र्यं नोपजायते ॥ १ ॥
नमो धर्मविधानाय नमस्ते कृतसाक्षिणे ।
नमः प्रत्यक्षदेवाय भास्कराय नमोनमः ॥ २ ॥
अकालमृत्युहरणं सर्वव्याधिविनाशनम् ।
सूर्यपादोदकं तीर्थं जठरे धारयाम्यहम् ॥ ३ ॥
(इति तीर्थं गृहीत्वाचमनं कुर्यात् ।)

N. B. The hymn used here is given with its explanation on pages 44 and 45.

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